# AVIATION HISTORY

# MADE BY THE AERO CLUB OF BUFFALO



#### AVIATION HISTORY

Made By The

AERO CLUB OF BUFFALO

(Oldest Aero Club in America --Second Oldest Aero Club in the World)



Researched and Written
by
Club Historians
John W. Van Allen
Counsellor at Law
Specializing in Aviation Matters

William B. Kamprath
Principal of Burgard Vocational High School,
First Public High School Approved under the
Civil Aeronautics Authority as a Certificated
Aviation Mechanics Training School

Research Assistant
Gregory Ductor, Jr.
Aviation Department Head at
Burgard Vocational High School

Memorial Chairman Clem G. Trimbach

Editorial Coordinator
Gordon W. Campbell
Writer and Advertising Representative
for Aviation Magazines
"Perennial Coordinator of the Aero Club"

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# AVIATION HISTORY is dedicated to the

Early Flyers
Intrepid Pilots
Dauntless Airmen
and

Others in <u>local</u> aviation who have made significant contribution to the development and advancement of aerospace:

George Adell Vic. Arcangel Edward Augustine H. Ralph Badger F. W. Baldwin Ernie Basham Edward Becker Lawrence Dale Bell Richard K. Benson Howard A. Benzel Donovan R. Berlin Cy Bittner George Bleistein Waldemar O. Breuhaus Roy R. Brockett Russell W. Bryant Gordon W., Campbell Dr. Charles Carey Floyd Carlson Edmund O. Carmody Leo Chase H. Lloyd Child Don Coe Glenn Hammond Curtiss Charles Dallas Ralph S. Damon Ganson Depew Walter R. Dornberger Joseph H. Dotterweich

Jack Drescher Dale Dryer Ernie Dryer Gregory Ductor Jr Nathaniel E. Duffy Cleburne Eberhart A. J. Elias August C. Esenwein Leston Faneuf Mrs Mildred Fedders Herbert O. Fisher Fredric Flader Reuben Hollis Fleet Charles "Dolly" Foersch Howard A. Forman Clifford C. Furnas William Gallagher J.A. (Al.) Gardiner Harvey Gaylord Lynn D. Gifford William G. Gisel Don Gould Louis W. Magee Gray Joseph Gwinn Charles Ward Hall Paul Hovgard James Howe Leslie L. Irvin (Continued)

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Others in <u>local</u> aviation who have made significant contribuion to the development and advancement of aerospace:

(Continued) "Tex" Johnson William B. Kamprath C. Roy Keyes John J. Lee Charles Maris Henry Marquart F. Leslie Marsden Herbert A. Meldrum Theodore H. Merckens Phillip Miraglia Wendel Moore Arthur Nutt George A. Page Jr. A. D. Palmer A. L. Pfitzner Jack B. Prior Heath Proctor Anthony W. Riccio Roland Rohlfs Edwin N. Ronne Ira G. Ross E. Howard H. Roth Robert K. Root Roy J. Sandstrom John M. Satterfield J. Fred Schoellkopf Earle M. Scott John C. Seal Arthur J. Seifert

Ralph W. Sidway Stanley W. Smith Robert M. Stanley Michael F. Steffen Frank Strabel John F. Strickler Jr Joseph L. Stromme Max F. Stupar H. Leroy Sutton E.R. Thomas Clem C. Trimbach George P. Urban John W. VanAllen Charles M. VanDerveer Stanley I. Vaughan Clinton Warner Milton Washburn William Wheatley H. Leibee Wheeler Ray P. Whitman Reginald V. Williams J. C. "Sarge" Willet Robert J. Woods Jack Woolams Burdette S. Wright Theodore P. Wright Arthur Young Skip Ziegler

# An 1842 Aviation Prognostication by Alfred Tennyson

For I dipped into the future, far as human eye could see,
Saw the Vision of the world, and all the wonder that would be;
Saw the heavens fill with commerce, argosies of magic sails,
Pilots of the purple twilight, dropping down with costly bales;
Heard the heavens fill with shouting, and there rain'd a
ghastly dew

From the nations' airy navies grappling in the central blue. Far along the world-wide whisper of the southwind rushing warm,

With the standards of the peoples plunging through the thunderstorm;

Till the war drum throbbed no longer and the battle flags were furled

In the Parliament of man, the Federation of the world.

- from Locksley Hall





Winged "Victory of Samothrace" Louvre, Paris, France

#### FORWARD

The deeds of many of the past and the thoughts of those who winged their way to Paris in May 1962, when the Oldest AERO CLUB in America met with the Oldest AERO CLUB in the world, have inspired this accounting of the important part our Buffalo AERO CLUB has played in advancing the "Spirit of Conquest" in aviation.

After meeting and communing with our friends of the Federation Aeronatique Internationale, and after viewing the marvelous sculpture - Winged "Victory of Samothrace" - in the Paris Louvre, it was appreciated what our Club's founders and pioneers of past decades contributed to launch us and the rest of humanity into the New World of Space - to rise with the dawn and see Winged Victory in the skies.

# Introduction

Wheels (Bicycles) and Horsepower
Wings (Pigeons) and Thrust

The High Bicycle Club and the Auto Club, the Carrier Pigeon Club of Buffalo and the AERO CLUB pioneered one of the first "flying machines".

With cloth and sticks and wire, an enterprising group of "air-minded" Buffalonians contrived an airplane in an East Side barn, hauled it to Main and Bailey (Country Club polo field) and turned the contraption loose. The fact that it got only four feet off the ground and then smashed doesn't much matter, any more than the Wright Brothers first tirade brought only scorn. Buffalo's airage enthusiasts were the fathers of what became the nation's first AERO CLUB.

Some of our old timers even said that if we go back far enough in Apocryphal History (of uncertain origin, but regarded as inspired) we can find some of our ante-diluvian ancestral members hob-nobbing with Leonardo da Vinci and assisting him in the drawings of his designs for "flying machines".

#### LESSONS OF THE BIRDS

A bird is a instrument working according to mathematical law, which instrument it is within the capacity of man to reproduce with all its movements, but not with a corresponding degree of strength, though it is deficient only in the power of maintaining equilibrium. We may therefore say that such an instrument constructed by man is lacking in nothing except the life of the bird, and this life must needs be supplied from that of man.

The life which resides in the bird's members will, without doubt, better conform to their needs than will that of man which is separated from them, and especially in the almost imperceptible movements which preserve equilibrium. But since we see that the bird is equipped for many obvious varities of movements, we are able from this experience to deduce that the most rudimentary of these movements will be capable of being comprehended by man's understanding; and that he will to a great extent be able to provide against the destruction of that instrument of which he has himself become the living principle and the propeller.

Leonardo da Vinci: Codex Atlanticus

From a letter written by E. Howard H. Roth president of the AERO CLUB in 1936

"Some day you might want to authenticate that the Aero Club of Buffalo is the "Oldest Aero Club in America, Second Oldest Aero Club in the World".

I cannot pinpoint the date, but along when Aero or Flying Clubs were coming into being fairly rapidly we were challenged on the use of the statement: "The Oldest Aero Club in the World." I suggested to our member and attorney, John Van Allen, that this matter should be validated and from a legal standpoint he was the man to do it. He entered into the search with vigor. He started with the date of our club's incorporation (March 21, 1910) and could show that there was only one other club in the world that had prior justification for being "first". This was the Federation Aeronatique Internationale of France.

Of course the Aero Club of Buffalo had been in existence many years before its incorporation and some of its members were actively engaged in the mechanics of flying. I understand some were studying the flights of pigeons, some were trying to incorporate bicycles with wings, others had progressed to where crashes of their "flying contraptions" were regular happenings.

So, from the pigeon, bicycling and motor clubs in Western New York came the flying group that was the nucleous of the Aero Club of Buffalo. They met in many places to discuss their advances and failures until they felt "flying was here to stay", the day of incorporation and their regular meetings thereafter.

The members of the Aero Club of Buffalo over the years have been the leaders of aviation not only in Western New York State but of the world over. It has been a wonderful club and can be justifiably called "The First Aero Club in America" as well as the "Oldest".

#### BEFORE 1879?

The present AERO CLUB of BUFFALO traces its continuous existence to 1879 - the date the Buffalo Bicycle Club (sometimes known as the High Wheel Club) was organized, February 22, 1879. It had as active members (the local pioneers of Aviation):

Charles Haberer Jo

Joseph Clody

Ed. Bull

Arthur Zimmerman

Major Taylor

Frank Kramer

Reggie McNamara

Alfred Goullet

Norman Hill

(Ref: Geist - "Cycling as a Hobby" - Grovenor Div. Erie County Library)

Other local cycle clubs developing ballooning (and "blimps") and racing pigeon interests were the Press Cycling Club, the Ramblers, the East Side Cyclers, and the Eldredge Club of Tonawanda. They all reached their period of greatest cycling activity in the 1880's and then some turned their interests to autos while others went to the air.

In 1878 Processor Ritchell of Hartford, Connecticut, constructed a small blimp. Its motive power was tained from a propeller driven by pedals in very much the same way as a bicycle. Ritchell reached an altitude of 200 feet, rode around about one hour until he tired of pedalling and returned to his original starting point. In the years that followed, many similar "sky bicycles" made their appearance around Buffalo and barnstormed American cities.

Members of the early Carrier Pigeon Club of Buffalo were more interested in the antics of Otto Lilienthal, a German, than they were of John J. Montgomery, an American, who in 1883 with his brother as an assistant, made his first gliding attempt. Montgomery's first craft was patterned after a seagull, its wings had a downward slope and a considerable length, Lilienthal's early attempts were along the lines of wings, which when attached to the arms of the aeronaut and whipped madly back and forth it was hoped, would take the enthusiast soaring, like a bird, into the air. These early attempts were doomed to failure. Lilienthal even went so far as to cover a set of these "human wings" with feathers, believing that the feathers themselves would exercise some strange influence toward lifting a man into the skies.

As to Buffalonian's interest at that time let's quote from the "First Century of Flight in America" by Jeremiah Milback, Jr.: "In 1886 at the thirty-fifth annual meeting of the American Association for the Advancement of Science, in Buffalo, one speaker was E.Lancaster who having spent five years in Florida studying the flight of soaring birds, read a paper on this topic before the assembled guests. The speech itself was tolerated, but when Lancaster failed to produce the actual working models which he claimed to have built, he was immediately reviled by the learned professors present who were convinced that he had only been insulting their intelligence. The incident was reported in the local press on the following day (Buffalo Courier of August 25, 1886): "Some of the members of the association seem to

be in a quandry as to whether Mr. Lancaster is a crank, or a sharp practical joker who has been giving the great association of America's savants guff. On Monday, as has been duly reported, they quite unanimously joined in reviling and laughing at him." Thus in 1886 had an objective analysis of soaring flight been treated so some of America's 'most progressive scientific minds."

In 1891, Lilienthal's attention was directed to the construction of a biplane glider - an affair made of peeled willow saplings and cotton cloth, waxed to make it air tight. The glider was so designed that it provided armrests to assist the flyer. To Lilienthal, must go credit for the first successful soaring attempts; Montgomery, it will

be remembered, had merely glided.

During this period there were trials and failures to fly by the most adventurous of the Carrier Pigeon Club of Buffalo but it was for Wilbur and Orville Wright of Dayton, Ohio to persevere. Historians note the pursuits of these two brothers in reading avidly accounts of Lilienthal's gliding and soaring experiences in Germany, and studying with peculiar fascination, Marey's "Animal Mechanization of Flight in the Animal Kingdom."

On July 2, 1900 the Automobile Club of Buffalo was organized, and shared its club rooms in the Hotel Lenox (North Street) with a dozen air enthusiasts headed by John M. Satterfield as their president. They

were the charter members of the present AERO CLUB of Buffalo.

On the occasion of the golden anniversary of the first regular meeting of the AERO CLUB, the late John W. Van Allen, a former president and "dean" of the AERO CLUB of Buffalo, Inc., recalled that the founders of the club, sparked by the late John M. Satterfield started regular meetings in 1900. A few years later the group received its charger as the first U.S.AERO CLUB Chapter from the Federation Aeronautique Internationale of France, making it the world's second oldest aero club and the oldest in America.

One of the exploits of the AERO CLUB preincorporation enthusiasts

was the 1906 flight of the first dirigible over Buffalo.

"Every street car on Main Street was stopped and all the children were let out of school to watch it. For two hours you couldn't get a

telephone connection because everybody was at the windows".

"After a few years as a group it combined with another group and incorporated under the laws of the State of New York on March 29,1910. I am enclosing a copy of the Certificate of Incorporation, paragraph SECOND of which outlines under the title of "PURPOSES", the objects of the group. In the Certificate of Incorporation you will find the names of the original incorporators which represented the most active members of the original group, all prominent men of Buffalo at the time." From a letter dated December 16, 1953 by John W. Van Allen to Gordon W. Campbell

## CERTIFICATE OF INCORPORATION OF

AERO CLUB OF BUFFALO

We, the undersigned, all being persons of full age and at least two-thirds being citizens of the United States, and at least one of us a resident of the State of New York, desiring to form a membership corporation pursuant to the provisions of the Membership Corporation Law, do hereby make, sign, acknowledge and file this certificate for that purpose as follows:

FIRST: The name of the Proposed corporation is

AERO CLUB OF BUFFALO

SECOND: The purposes for which it is to be formed are the promotion of a social organization or club composed in whole or in part

of persons owning aeronautic inventions for personal or private use. To advance the development of the science of aeronautics and kindred sciences. To encourage and organize aerial navigation and excursions, conferences, expositions, congresses and races. To develop the breeding and training of carrier pigeons and to hold exhibitions, shows and contests therefor. To hold, maintain and conduct games, meets, contests, exhibitions and shows of air-ships, balloons, or other inventions or constructions designed to be propelled or travel thru the air or otherwise. To maintain a club house or club houses, aerial garages and other houses, club grounds, electric and gas equipment and other accessories, aeronautic or otherwise incidental to the business of the corporation. To do everything necessary, suitable and proper for the accomplishment of any of the purposes or the furtherance of any of the powers hereinbefore set forth, and to do every other act or other acts incidental or appurtenant to or connected with the aforesaid business, sports or powers or any part or parts therof provided the same be not inconsistent with the laws of the State of New York.

THIRD: The territory in which the operations of the corporation are to be principally conducted is the State of New York and in any

other part of the world.

FOURTH: The principal office of the corporation shall be located in the City of Buffalo, in the County of Erie, New York.

FIFTH: Its duration is to be perpetual.

SIXTH: The number of its directors is to be nine (9).

SEVENTH: At the first annual meeting of the members of the corporation the directors shall be classified and elected by said members with respect to the time which they shall severally hold office by dividing them into three classes, each consisting of one=third of the whole number of the Board of Directors. The directors of the first class shall be elected for a term of one (I) year; the directors of the second class for a term of two (2) years; and the directors of the third class for a term of three (3) years; and at each annual election the successors to the class of directors whose term shall expire in that year shall be elected to hold office for the term of three (3) years, so that the term of office of one class of directors expire in each year.

EIGHTH: The names and post office addresses of the persons to be the directors until the next annual meeting of the corporation are as

follows:

NAMES	POST OFFICE	ADDRESSES
John M. Satterfield	Buffalo,	
Herbert A. Meldrum	ŭ	PP .
Howard A. Forman	11	11
Robert K. Root	11	FF
George P. Urban	11	71
Edwin R. Thomas	11	***
James Howe	11	11
Ralph W. Sidway	"	11
George Bleistein	n n	11

NINTH: The names and post office addresses of the subscribers to

this certificate are as follows:

cross greene are no poecows.		
NAMES	POST OFFICE	ADDRESSES
John M. Satterfield	Buffalo,	N. Y.
Herbert A. Meldrum	ĭi.	11
George P. Urban	11	H
James Howe	31	11
Ralph W. Sidway	H	11

IN WITNESS WHEREOF, we have made, signed, acknowledged and filed this certificate in duplicate.

Dated, this 21st day of March, 1910.

John M. Satterfield Herbert A. Meldrum George P. Urban James Howe

Ralph W. Sidway

State of New York:

: 6.6.

County of Erie:
On this 21st day of March, 1910, before me personally came.
JOHN M. SATTERFIELD, HERBERT A. MELDRUM, GEORGE P. URBAN, JAMES HOWE and RALPH W. SIDWAY, to be known and known to me, to be the same persons described in and who executed the foregoing certificate and they severally duly acknowledged to me that they executed the same.

Notary Public in and for Eric County, N. Y.

(Notary Seal)

The foregoing certificate is hereby approved pursuant to the provisions of Section 41 of the Membership Corporation Law.

CUTHBERT W. POUND Justice of the Supreme Court Dated Buffalo, N. Y. March 24, 1910.

COVER

CERTIFICATE OF INCORPORATION

OF

AERO CLUB OF BUFFALO

Datad March 21st, 1910

\*\*\*\*\*\*

STATE OF NEW YORK

# ERIE COUNTY CLERK'S OFFICE

Recorded in Liber 26 - page 403 of Incorporations on the 29th dag of March, A.D. 1910 at \$255 o'clack P.M. and examined.

J. H. PRICE Clerk

KENEFICK, COOKE & MITCHELL, 558 Ellicott Square Buffalo, N. y. "In some early By-Laws of the AERO CLUB it is stated" and by virtue of the then existing charter of this chapter, the AERO CLUB OF BUFFALO, Inc. accordingly becomes the local unit and representative of that association in Buffalo: (Federation Aeronautique Internation-ale).

"---This indicates that the club, prior to the date of incorporation in 1910, had a charter from the Federation. (The Federation Aeronautique Internationale is the oldest aeronautical club in the world.)" From a letter dated March 31, 1958 by John W. Van Allen to

Gordon W. Campbell.

Major Satterfield explained that the records of the old former AERO CLUB were in charge of the late lieut. Edwin M. Ronne and that they were lost accidently in a fine. A new set of By-Laws was adopted and became effective January 28, 1929.

BY-LAWS

of the

# AERO CLUB OF BUFFALO, INC.

# ARTICLE 1.

The objects and purposes of the AERO CLUB OF BUTTALO are stated in its Certificate of Incorporation, supplemented by the following:

. To foster interest in the principles and development of

AERONAUTICS in Buffalo and New York State.

2. To develop a source to which members and Buffalonians generally may look for aeronautical information, and to which those outside the city may apply for such knowledge as it applies particularly to this city as well as to develop a social aeronautical club.

3. To hold regular MEETINGS in the form of lectures, talks, discussions and demonstrations on aeronautical subjects, to be addressed by persons of authority and eminence in the field for

the benefit of its membership and the public.
To encourage those engaged in the TRADE and BUSINESS of

4. To encourage those engaged in the TRADE and BUSINESS of manufacturing and operating a licraft and its allied products and services and especially to aid in encouraging the public's use of these.

5. To encourage and work for the procurement of the full AIRPORT

facilities that Buffalo and vicinity should have.

6. To aid and initiate improvement of the AIRWAYS leading in and out of Buffalo, including the air-marking of ground objects for the guidance of aircraft und r all conditions and the direction marking of highways to and from airports and other places of importance to air operations.

7. To interest itself fully in the aviation LEGISLATION of its city, country, state and nation; to work for the enactment of helpful measures and to be prepared to advise competently governmental agencies and others who may naturally look to

it for adequate opinions, facts and plans.

8. To CO-ORDINATE the works of the various aeronautical interests, in Buffalo, and to obtain unified support for important aviation projects.

9. To work for the establishment in Buffalo of a comprehensive aeronautical EDUCATIONAL system, adequate to the advanced place this city has held in the industry.

10. To inspire and educate the YOUTHS of its community to participate in as well as study the many phases of aeronautics.

11. To encourage, cooperate with and arrange for local, state, national and international AIR MEETS, tours, exhibitions, competitions,

conventions and congresses.

12. To develop a SPEAKER'S BUREAU for the purpose of supplying adequately the constant demand from local clubs or groups for someone to talk on some aviation subject at a special or regular meeting.

13. To aim in seeing that as much helpful PUBLICITY as possible regarding aeronautics in general, is extended in Buffalo and vicinity and to lend its influence to subdue as much as may be, that

of a negative nature.

14. To extend HONORS and hospitality to those eminent in the field of aeronautics.

15. To offer such AWARDS, medals, trouphies and prizes as may be deemed desirable.

16. To widely increase its MEMBERSHIP so that a larger number of people may be brought into contact with its work and interests.

17. To conduct the general business of a CLUB and to engage in any-thing incidental or essential to any phase of its work.

# ARTICLE 11.

# Membership

Sec. 1 CLASSES. The membership of the Club shall be of two classes:

Honorary and Regular.

- Sec. 2 HONORARY Membership in the AERO CLUB of Buffalo, Inc. may be conferred upon persons of distinction or persons who have rendered some service to Buffalo, or aviation, and who, by the unanimous opinion of the Board o' Directors are entitled thereto.
- Sec. 3 REGULAR membership in the Club is open to any person interested in the promotion and advancement of the science of aeronautics, who is of upright character, and who may be approved by the Board of Directors upon agreeing to be bound by the By-Laws and rules of this Club and upon payment of the current year's dues.

Sec. 4 APPLICATIONS for membership in the Club must be accompanied by the remaining portion of the current calendar year's dues and all applications must be passed upon by the Board of Directors.

Sec. 5 TRANSFERRING of existing membership from one person to another

is not permitted.

Sec. 6 TERMINATION of membership in the Club may be effected either by voluntary resignation (in writing) of member and acceptance by the Board of Directors or by action of the Board of Directors in expelling a member for cause.

# ARTICLE 111.

#### Dues

Sec. 1 INITIATION FEE for new members, may be established by the Board of Directors at its own discretion and in the amount they determine.

Sec. 2 DUES shall be paid for the calendar year or for such portion (in full quarters) of it as remain at the time of joining the Club, as follows:-

(a) Honorary Members - none

(b) Regular Members - \$10.00 for full calendar year, \$7.50 for final three quarters of such year, \$5.00 for final half such year, \$2.50 for one quarter such year.

Sec. 3 ANNUAL DUES become due in advance on January first of each year for the calendar year ahead. Notice of this shall be mailed each member two weeks previously (on December 15th of preceding year).

Sec. 4 FAILURE TO PAY. Any member whose annual dues are still unpaid for the current year on February 1st, may be deprived of all privileges and honors of such membership until these are paid and notice of such suspension mailed to him. Any member whose full current year's dues still remain unpaid on March 1st, may be deemed to have thus tendered his resignation and shall cease to be a member of the Club and shall be so notified in the name of its Board of Directors.

Sec. 5 LEVY of an assessment, not to exceed five dollars per member in any one calendar year, may be made by the Board of Direct-ors to cover any deficit in the Club's revenues, provided that a notice of intention of such levy is sent to each director at

least ten days in advance of the meeting.

Sec. 6 FISCAL YEAR of the Club shall be the calendar year, January1st to December 31st, inclusive.

# ARTICLE 1V

# Meetings

- Sec. 1 ANNUAL MEETING of the Club shall be held at its headquarters in the City of Buffalo, on the third wednesday of January of each year for the election of directors and the transaction of such other business as shall come before it. Other meetings of the Club shall be called and held under any of the following conditions:
  - (a) Upon the call of the President

(b) Upon the call of seven members of the Board of Directors.

(c) Upon regular dates set by the Board of Directors.

- (d) Upon the written request of 25 members setting forth the purpose thereof and directed to the President; and upon such request the President must call the meeting so that it will be held within ten days after such a request is filed.
- Sec. 2 QUORUM, at meetings of the Club for the transaction of busiess shall be fifty members in good standing.

Sec. 3 PROXIES shall not be accepted.

Sec. 4 PROCEDURE for the transaction of all business at all meetings shall be in accordance with the rules of the Board of Directors.

# ARTICLE V.

# Elections

- Sec. 1 NOMINATING COMMITTEE of five members, shall be appointed by the President, subject to the approval of the Board of Directors, at least thirty days before the Annual Meeting, and this committee shall nominate at least two candidates for each director to be elected. There shall be no campaigning for office and the list of candidates shall not be disclosed to any person except the committee of nomination until the moment the polls open. No person not nominated as hereinbefore provided shall be eligible as a candidate.
- Sec. 2 ELECTIONS shall be by ballot only. The list of candidates shall be printed in alphabetical order on the official ballot. On it shall be a column in front of each candidate's name, whereon "X" shall be plainly marked as a vote. Only official ballots, properly marked, shall be counted by the tellers.
- Sec. 3 POLLS shall remain open from five p.m. to eight-thirty p.m. on the day of the annual meeting and shall be in charge of tell-ers appointed by the President.
- Sec. 4 EACH REGULAR MEMBER shall be entitled to one vote at the Annual Meeting provided his dues are paid for the full preceding year.
- Sec. 5 HIGHEST number of votes for candidates elect; vacancies to be filled by the Board of Directors at its descretion either by taking the next highest men of the election, or some other as it sees fit.

# ARTICLE VI

# Directors

- Sec. 1 GENERAL CONTROLS and management of all Club activities including the appropriation of funds, making of contracts, passing upon all applications for membership, and if necessary, the delegation of these powers to any officer or employee by resolution properly adopted shall be vested in the Board of Directors.
- Sec. 2 MEETINGS of the Board of Directors shall be held regularly at least six times a year. They shall meet immediately after each Annual Meeting of the Club and from the Directors shall elect Officers for the ensuing year.
- Sec. 3 QUORUM at meetings of the Board of Directors shall be nine Directors.
- Sec. 4 ABSENCE Any member of the Board of Directors missing three properly called meetings of the Board in succession, without excuse acceptable to it, may be deemed to have thus tendered his resignation. A member of this Board and his place thereon may be declared vacant, notification of this being mailed to him in its name.
- Sec. 5 VACANCIES in the Board of Directors, as well as in the offices of President, Vice President, Secretary and Treasurer shall be filled by the Board of Directors for the unexpired terms there-

# ARTICLE VII

# Officers

- Sec. 1 OFFICERS shall consist of President, Vice President, Secretary and Treasurer. These officers shall be elected from and by the Board of Directors and shall hold office until their successors are elected.
- Sec. 2 PRESIDENT shall preside at all meetings of the Club as well as those of the Board of Directors; shall be exofficio member of all committees; shall be the Executive Officer of the Club and shall have general supervision of its business and affairs; enforce all rules and regulations of the Club, and shall perform such other duties as are incidental to his office.
- Sec. 3 VICE PRESIDENT shall assume the duties of the President in the absence of the President.
- Sec. 4 SECRETARY shall keep a record of all minutes of the meetings of the Club and of the Board of Directors; issue all notices to members as directed by the By-Laws or as directed by the Board of Directors; shall issue notices for Director's meetings; shall keep as accurate register of names and addresses of members, and shall perform such other duties as are incidental to his office.
- Sec. 5 TREASURER shall keep the accounts of the Club, receive and deposit all moneys, and shall pay all bills where properly approved.
- Sec. 6 ASST. SECRETARY-TREASURER may be appointed from the Club membership by the President, subject to the approval of the Board of Directors, to assist in carrying out the duties of these offices.
- Sec. 7 OFFICE ASSISTANT, on part or full time, may be engaged by the President, subject to the approval of the Board of Directors, to perform the clerical work of the Club's office.

# ARTICLE VIII

#### Committees

- Sec. 1 STANDING COMMITTEES shall be appointed by the President, subject to the approval of the Board of Directors, on or before the first of February of each year after the Annual Meeting as follows:-
- Sec. 2 EXECUTIVE COMMITTEE, composed of the four Officers and one other member of the Board of Directors, with power to author-ize expenditures, and to take such action as they believe wise in the conduct of the Club's affairs.
- Sec. 3 HOUSE AND ENTERTAINMENT Committee to have charge of the Club's quarters; to arrange year's program of monthly meetings and to assist Officers on plans for entertainment at these and other meetings.
- Sec. 4 MEMBERSHIP COMMITTEE to build up membership in the Club.
- Sec. 5 AIR MEET Committee to plan and carry out an annual "Aero Club Aviation Day" at Buffalo Airport, as well as to encourage, cooperate with and arrange for other aeronautical meets, tours, competitions, exhibitions and conventions.
- Sec. 6 EDUCATIONAL Committee to aid in the development of an adequate aeronautical educational system in Buffalo, including the

cooperation with the manufacturers or operators of aircraft in educating the public to the use of this.

Sec. 7 AIRPORTS and AIRWAYS Committee to work for the improvement of Airports in Buffalo and of the Airways leading in and out of them, including the air-marking of ground objects for the guidance of the latter and the ground-marking of roads to and from airports, etc.

Sec. 8 AVIATION LEGISLATION Committee to assimilate a knowledge of existing civic, state and national aviation legislation, to study and recommend to the Board of Directors action in regard

to proposed new aviation law and legislation.

Sec. 9 PUBLICITY Committee to promote all possible desirable publicity for the Aero Club, its activities, interests and aviation in general, in Buffalo.

Sec. 10 SPEAKERS BUREAU to obtain and supply speakers on Aviation sub-

jects to Buffalo clubs, groups and special occasions.

Sec. 11 AUDITING Committee, composed of three members not of the Board of Directors, to audit the Books and accounts of the Club.

Sec. 12 ADDITIONAL Committees as needed may be appointed by the President at his discretion.

# ARTICLE 1X

# Suspension

These By-Laws or any provision thereof may be temporarily suspended at any one meeting by a two-thirds vote of those present.

# ARTICLE X

# Amendments

These By-Laws may be amended at any time by the unanimous vote of the Board of Directors present at any meeting of the Board, provided that a notice and copy of such proposed amendment shall be mailed and given to every director at least five days previous to the meeting at which proposed amendment is to be considered.

End

#### 1903 AND?

John M. Satterfield "the father of aviation" in Buffalo and founder of AERO CLUB of Buffalo said "We organized when the Wright Brothers were still experimenting with their Walloping

windowpane".

1903-December 17 - Wright Brothers fitted a biplane glider with a 16 h.p.motor, driving double screws behind the planes. Total weight of machine, 750 pounds. Orville Wright flew at a speed of 30-35 m.p.h. covering 120 feet in 12 seconds. Later the same day Wilbur Wright flew the machine a 12 stance of 852 feet in 59 seconds.

- Glenn Hammond Curtiss, a motorcycle manufact of Hammondsport, N. Y. (115 miles from Buffalo) joins A sunder Graham
  Bell and some others to form the Aerial Expension at Hammondsport, N. Y. By 1908 this firm had soduced four
  airplanes, each an improvement over its predection. The last
  two won several prizes and established Curtiss rirmly not only
  as a pilot but as a designer of airplanes and engines. The
  firm was disbanded in 1908 but Curtiss continual on his own.
- 1908-March 12 The "Red Wing", first Curtiss built bip: airplane takes off the ice of Lake Keuka (Hammondsport, N.: . This ship was a design of the Aerial Experiment Association formed by Alexander Graham Bell and Glenn Curtiss. After a 550 foot run the Red Wing flew a distance of 319 feet. Much credit for the design of the airplane itself goes to Lt. Thomas E.Self.idge (Later killed during the trials of the first plane which the Wright Brothers built for the d.S.A.my was also a member of the Aerial Experiment Association of Curtiss alone, however must be passed to surels for an engine's design and construction. Next came the White Wills, (enclosed cockpit and tricycle landing gear) a so a flying success, designed by F.W.Baldwin (a member of the Aerial Experiment Association) and powered by a Curtiss engine.

1908-July 4 - The third airplane built by Aerial Experiment Association (Hammondsport, N.Y.) carried the name "June Bug" and was entirely Curtiss design. This is the ship which made the first officially recorded flight in the United States. The June Bug with its box tail and nainsook skin had hinged flaps or ailerons to give it lateral control. It covered 2000 yards at a speed of 39 miles per hour, thus winning the Scientific

American Magazine Award.

1909- "It is conceded that the coming sport will be motoring in the air; - From Buffalo Motorist

- 1909- Glenn Curtiss (Hammondsport, N.Y.) advertises the first commercial plane for sale. Maximum speed: less than 50 miles per hour.
- 1909- Curtiss builds the world's first seaplane on floats at Hammondsport, N.Y.
- 1910- After incorporation in 1910 John M. Satterfield was elected the first president of the AERO CLUB of Buffalo Inc. and from the Buffalo Motorist we quote: "Satterfield was the prime mover in the club." At its first meeting (after incorporation), he made a speech in which he stated: "Now comes Navigation of the

Air! The day will come and come soon, when the AERO CLUB will become paramount to all other clubs. They will soon be - not promoting and encouraging - but restraining and controlling. You must realize that in navigation of the air, you for the first time will travel in all tangible dimensions of space. In the air you will travel not only on all conceivable horizontal planes, but all conceivable vertical planes as well. These factors will introduce most bewildering difficulties and dangers when the air is filled with aircraft of all kinds. "These are some of the most serious thoughts. On the lighter side, we will have the pleasure of fostering one of the most fascinating sports known to man. While the dirigible will probably become the airship of utility and commerce, the aeroplane will allow the sportsman more possibilities for the exercise of skill and nerve than yachting and automobiling combined."

George Pennock Urban "decided to learn to fly in 1910, although he was 33 years old at the time. He became one of the five incorporators of the Aero Club of Buffalo. They flew from a cleared field at the foot of Porter Ave. after a halfdozen flights, he found out he was so old the Army wouldn't accept him as a pilot".

1910-February - Buffalo Motorist

"The Wright Brothers were in Buffalo for a few days last month and so was Glenn Curtiss to give testimony in the suit brought by the former against the latter for infringement of their patents. (claiming that a wing with ailerons was substantially the same as one that warped). They met at the headquarters of the AERO CLUB. Later the U.S.District Court of Appeals vacated the injunction,— thus allowing large numbers to indulge in aviation as much as they desire."

1910-May 29~ Glenn H. Curtiss won the New York World prize award for the first successful flight from Albany to New York City. Two stops were made for refueling - total time of flight 4 hours

and 55 minutes for the 150 miles.

1910- June - Buffalo Motorist

"AERO CLUB TO Build Aerodome"

"Immense structure to be placed at the disposal of aviation and to be located at the Polo Grounds of the Buffalo Country Club.

"An aerodrome large enough to house four or five aeroplanes and equipped with all the machinery necessary for the construction of any sort of flying machine is to be built in a short time at the Country Club by the AERO CLUB of Buffalo at the s.w.corner of the club's Polo Field at Main St. and Bailey Ave.

"A.L.Pfitzner, whose monoplane is already at the Country Club has consented to give AERO CLUB members the advantages of his experience. Any Aero Club members owning an aeroplane - or in fact any flying machine of any sort - may make application for the use of the aerodrome for garaging the machine and of the polo field for flying. Some idea of the immense size of the proposed building may be noted. It will house four or five full size flying machines 35ft from wing tip to wing tip".

1910- June - The first airplane to alight on water successfully,
Glenn H. Curtiss, pilot, Lake Keuka, Hammondsmport, N. Y.

1910-October - A. L. Pfitzner, Ass't engineer and plant manager at Curtiss, flies his own personally designed and built monoplane. 1910 - George Adell (Club member) built a plane and flew it across Niagara River.

1910-October - Buffalo Motorist

"Because of recent aviation accidents and fatalities, Rudyard Kipling has suggested that aviators wear a pneuumatic helmet to protect the head in case of falls".

- 1910- Blanche Stuart, of Rochester, N. Y. first American woman pilot, soloed.
- "Kenilworth Park Racetrack just west of Niagara Falls Blvd.
  and north of Kenmore Ave. was the scene of a big Aviation Meet
  in July, 1911 sponsored by the Chamber of Commerce, the
  Manufacturers Club and the AERO CLUB of Buffalo. The Wright
  Brothers and a score of leading aviators took part.
  "Glenn H. Curtiss advised Harry D. Kirkover of the AERO CLUB
  that he would enter four flights during the big meet "Two
  military type planes when attempts will be made to drop bombs
  from the clouds on the outline of a battleship marked out on
  the Kenilworth aviation field".
- Duffalo Motorist
  Of special interest to Buffalo's Irvin Air Chute Co. Cablegg a from Paris: "An aeroplane, equipped with a parachute with a suspended dummy, weighing it is as an a from the Eiffe Tower. The plane was smarred to hits, but a parachute dummy came down gently."

  "The device will be perfected until it will assu. A solute safety in flying".
- "At the Buffalo Aviation warm Lincoln Beach, took off the Old Driving Park on Perry St. and Mumboldt Parkway, and cheers from 20,000 people and headed for Magara Falls, swooped down into the gorge benealth the arches of the upper steel arch bridge and close to the from Merous waters of the Whirlpool Rapids, ring again beaut, the precipitious sides of the lower river and apared to the Inadian side where he made a successful landing."
- 1911- Lincoln Beachy flies a Curtiss biplane the first airplane ever to be "looped".
- Buffalo Motorist
  "Harry B. Atwood landed at the Kenilworth Race Track during the Aviation Meet during his spectacular Cross Country Flight from St. Louis to New York City".
- "The Buffalo Motorist tion of a gas balloon and an aeroplane of the monoplane type".
- 1911 12 13

  From the backyards, woodsheds and small shops of America emerge hundreds of so called aeroplanes several from AERO CLUB of Buffalo members.
- 1911 The U.S. Navy has a three plane airforce: A Curtiss A-1, and A-2 and a Wright B-1.
- 1912- October 12 Commander T.G.Ellyson makes first successful shot from catapult with a Curtiss AH-3.
- 1912 Curtiss builds the first side-by-side control tractor biplane for U.S.Army instruction use.
- 1912 Glenn Curtiss designed and flew the world's first flying boat.
  A direct descendant of that machine was the HS-2L of 1917.
- 1913 Curtiss makes the first two-place flying boat used for instruction at Hammondsport, N.Y.

- 1915 Dec. Curtiss Aeroplane Co. and Curtiss Motor Co. of Hammondsport move to Buffalo, N. Y.
- 1915 40 members of the AERO CLUB of Buffalo formed the nation's first flying squadron. All funds for planes and other equipment had to come from the pockets of members."--the AERO CLUB of Buffalo which in 1915 became the Second Aero Co. New York National Guard, Federalized in 1916 and integrated in the Army Signal Corps, the unit served on the Mexican Border as part of the expedition against the Mexican revolutionary".

  During World War 1 many of its members were commissioned individually as instructors.
- Nathaniel E.Duffy (Director of Buffalo Airport 1927-1960)
  "---the first chance he had to leave Troop I along the Mexican border, he headed for France, where he became the first American flyer to fight in World War I.

  "In those days we learned to fly by ourselves with our only directions coming from the ground. We could only fly in the morning when there was no wind. We started by maneuvering the controls without leaving the ground. We would fly straight ahead in one direction. Then we learned to turn on the ground and finally we got into the clouds. We used only hand signals."

Nat. Duffy "gained the skills enabling him to join the famed flying Lafayette Escadrille of France".

1914-1916 - Western New York State Aircraft Manufacturers Curtiss Aeroplane, Hammondsport, New York

Curtiss Model D Two-place biplane: 1387 lbs., gross weight; 38' 1" span; 25'6" length; 1 Curtiss E-4 engine; 50 h.p.; top speed 50 m.p.h.

Curtiss Model E Two-place biplane, 1262 lbs. gross weight; 36'11" span; 31'8" length, 1 Curtiss S-6 engine; 60 h.p.; top speed 44 m.p.h.

Curtiss Flying Boat - Two place biplane; 1760 lbs, gross weight; 41'8" span; 27' 4" length; 1 Curtiss L or O engine; 80 h.p.; top speed 59 m.p.h.

Curtiss Model G Two-place biplane; 1290 lbs. gross weight; 38"4" span, 24'0" length; l Curtiss O engine; 80 h.p.; top speed 52 m.p.h.

Curtiss Model J Two-place biplane, 1345 lbs, gross weight 40'2" span; 26'4" length; 1 Curtiss OXX engine; 90 h.p. top speed 84 m.p.h.

Curtiss Model N Two-place biplane; 1360 lbs. gross weight; 41'7" span; 27'2" length; 1 Curtiss Ox engine; 90 h.p.; top speed 82 m.p.h.

Curtiss Model R-2 Reconnaissance, two-place biplane; 2800 lbs.
gross weight; 47'll" span; 28'5" length;

Curtiss JN-4

Curtiss JN-4

Two-place biplane; 1850 lbs. gross weight; 43'7" span; 26'10" length; 1 Curtiss OX-2 engine; 90 h.p.; top speed 80 m.p.h.

Thomas Bros. Aeroplane Co., Ithaca, New York

Type T-2

28' length; 36' span; 1 Curtiss engine;
80-90 h.p.; speed range 38-82 m.p.h.

Type D-2 Reconnaissance; 29' length; 37' span; one 135 h.p. Thomas engine; speed range 43-95 m.p.h.

1915 Flying Boat Length 28'6"; span 38'; 1 Austro-Daimler engine; 90 h.p.; top speed 70 m.p.h.

Thomas Bros. Aeroplane Co., Ithaca, New York

Type D-5

Two-place biplane; 2550 lbs. gross weight;

52'9" span; 29'9" length; 1 Thomas Model 8

engine; 135 h.p.; 86 m.p.h. speed.

1916 - February - Curtiss Exhibition Co. operates flying fields and schools at Buffalo, Hammondsport, Miami, San Diego and Newport

News.

1917 - October - Liberty motor - 12 installed in first H-S-1 flying boat at Buffalo, N.Y. Peter Jensen foreman of Experimental Dept.

1917 - April 6 - Western New York State Aircraft Manufacturers and

thru Production

1919 - November 1

Curtiss Aeroplane & Motor Corporation

JN-4 Primary Trainer: two-place biplane; 1850 lbs. gross weight; 43'7" span; 27'3" length; 1 Curtiss OX-5 engine; 90 h.p.; 75 m.p.h. top speed.

JN-4D Primary Trainer; two-place biplane; 1920 lbs. gross weight; 43'7" span; 27'4" length; 1 Curtiss OX-5 engine;

90 h.p.; 80 m.p.h.top speed.

JN-4H Advanced Trainer; two-place biplane; 2150 lbs. gross weight; 43'7" span; 27'1" length; 1 Hispano A engine; 150 h.p.; 93 m.p.h.top speed.

JN-6HG Advanced Trainer; two-place biplane; 2700-50 gross weight; 43'7" span; 26'll" length; l Hispano engine; 150 h.p.; 80 m.p.h. top speed.

Total Production, All Types-----4,014

Thomas-Morse Aircraft Corporation - Ithaca, N. Y.

S-4B Pursuit Trainer; 1 place biplane; 1360 lbs. gross weight; 26'7" span; 19'10" length; 1 Gnome B-9 engine; 100 h.p.; 95 h.p.h. top speed.

S-4C Pursuit Trainer; 1 place biplane; 1354 lbs. gross weight; 26'6" span; 18'6" length; 1 LeRhone C-9 engine; 80 h.p.; 90 m.p.h.top speed.

Total Production, All Types---- 599

1919 - The office of the Secretary of the AERO CLUB of Buffalo was established at 531 White Building (Main St near Swan St.)

1919 - March - Major Reuben Fleet establishes new record for long distance flight - Dayton, Ohio to Hazelhurst Field - 664 miles in 4 hours 33 minutes.

1919 - April 28 - Leslie L. Irvin of Buffalo made the first successful descent with a free-type parachute, the U.S.Army Type Anback pack at McCook Field, Dayton, Ohio.

1919 - May 8 - Three NC (Navy-Curtiss) heavy biplanes flying boat powered with four Liberty engines, each driving a four-bladed propeller leave Rockaway Beach. Reach Newfoundland and waited eight days to fly to the Azores. The NC-1 lost its way in the fog and the crew was rescued by a destroyer. NC-3 was forced down before reaching land. NC-4 set down in the harbor at Horta, the first airplane ever to navigate the wild Atlantic. The NC-4 pushed on to England, 12 days from New York; to a Southampton, England.

1919 - June - Leslie Irvin organizes Irving Air Chute Co. in Buffalo, N. Y. and receives first government contract to manufacture free-fall, manually operated, pack on aviator parachutes.

1919 - July 25 - Roland Rohlfs, test pilot for Curtiss, reaches altitude of 30,000 feet; and on Sept. 18 flies a Curtiss "Wasp" 34,910 feet.

1919 - Curtiss Company demonstrated its Eagle, the first transport built as such, capable of carrying eight persons.

1920's - AERO CLUB members led a drive for construction of a Buffalo Airport. In 1926 the airport became a reality after plans had been drawn by John Satterfield, Club president for many years.

1921 - G. Elias & Bros., Buffalo, N. Y. designed several types of commercial planes and a twin engined passenger transport the

"Airmobile".

1921 - Caterpillar Club, founded by Irving Air Chute Co. in Buffalo.
Sole qualification for membership is to have saved one's life
by means of a parachute. By 1965 there are over 200,000 members.

- 1921 thru 1926 The Curtiss Aeroplane Co. built and operated hangars and flight facilities at the intersection of Sheridan Drive, Niagara Falls Blvd. and Eggert Rd. Edwin Ronne taught flying.

  Leo Chase, Roland Rolphs and Ralph Roads were test pilots.

  Some students at that time were Michael Steffen, Don Gould, Lou Gray, Charles Dallas and Ralph Taber. Charles "Dolly"

  Foersch was Chief Mechanic. "Dolly" nickname was a result of his built-up unit with two wheels for use in mounting tail skid equipped aircraft.
- "Capt. Eddie Rickenbacker joins The AERO CLUB : Buffalo. "he was the quest of the AERO CLUB of Buffalo at a dr n r given in in his honor at the Old Iroquois Hotel on April 13, 1922.

  "He addressed the club members and is quoted as saying:
  America gave the aeroplane to the world. It was American genius that first designed it but the government would not accept it, and the inventor went to France and sold it. We ought to control the aeroplane industry".

  "Another speaker was Major R. Cocher who accompanied Capt. Rickenbacker to Buffalo. In his remarks he said: The most important step now is the establishment of landing fields in all principal cities. A tract for a suitable landing field should be at least 3000 feet square -- level, well drained and near a railroad".

1923 - Curtiss built Carrier Pigeon, the first airplane designed for mail carrier service.

1923 - Curtiss builds first Hawk known as PW8. Powered by a D-12 engine, speed was approximately 150 m.p.h.

1923 - Consolidated Aircraft Corp. is organized by Major Reuben Fleet.

1923 - First Army Curtiss Hawk, 420 h.p.Flown by Lt. R.L.Maughan in first coast-to-coast dawn-to-dusk flight.

1923 - 1924 - Western New York State Aircraft Manufacturers
Curtiss Aeroplane & Motor Co

Air Mail Night flying mail plane; 1 Curtiss C-6 engine; 160 h.p.; speed range of 44 to 106 m.p.h.; mail load capacity of 300 to 500 lbs.

R-8 )Air Service & Navy racer; single engine biplane; Curtiss R2C-1)D-12 motor; 500 h.p.; 22' span; 19'9" length; top speed 266 m.p.h.

PW-8 Army single engine pursuit; Curtiss D-12 motor; 460 h.p.;

22'6" length, top speed 161 m.p.h.

Navy CS-1 One Wright T-2 motor; 530 h.p.; 102 m.p.h.; 56'6" span; 40'3" length. Used either as a land or as a sea plane, and is readily converted into a torpedo plane, a bomber or scout.

1923 - 1924 - Western' New York State Aircraft Manufacturers (cont'd)
Curtiss Aeroplane & Motor Co.

PW-8B (Curtiss "Hawk") Single engine pursuit, 1 Curtiss D-12 engine; top speed 170 m.p.h.; 31'6" span; 22'1 11/16" length, ceiling 24,250.

XO-1 (Curtiss "Falcon") Observation; 38' span 27' 10 3/32" length; either one 415 h.p. Liberty 12 engine or one 510 h.p.Packard 1A-1500 engine; top speed 152-158 depending on engine.

NBS-4 (Curtiss "Condor") Night bomber; normal bomb load of 2,000 lbs; two Liberty 12 motors; 103.5 m.p.h. top speed; 13,400 ft. ceiling; 90' span; 46' 3/38" length.

Curtiss (Carrier Pigeon") Mail plane; one Liberty 12 engine; top speed 127 m.p.h.; useful load of 1855 lbs.

G. Elias & Bros. Inc - Buffalo, New York

NBS-3 Night bombardment; 4-man crew; biplane; 14,427 lbs. gross weight; 77'6" span; 49'5" length; 2 Liberty 12-A engine; 420 h.p.; top speed 100 m.p.h.; ceiling 12,000 ft.

M-1 Mail plane; one-place biplane; speed 50-130 m.p.h. capacity 1000 lbs.; ceiling 17,000 ft.

Thomas-Morse Aircraft Corp., Ithaca, New York

(Tapers off aircraft activities in 1924)

Model S-9 Training plane; l Lawrence 200 h.p. engine; speed 50-118 m.p.h.; semi-metal.

Model TM-23 - Pursuit plane; 1 Curtiss 375 h.p.engine; all metal construction.

Model TM-24 - Observation; all metal; 1 Curtiss CO-12 engine; speed 63-140 m.p.h.; 30' 1" span; 20' 5" length.

Huff-Daland & Co., Inc., Ogdensberg, New York

TA-6 Trainer: 2 place biplane; 1964 lbs. gross weight; 29'4" span; 23'6" length; l Lawrence J-I engine; 220 h.p. top speed 115 m.p.h.

TW-5 Trainer; 2 place biplane; 2212 lbs. gross weight; 31'1" span; 24'8" length; 1 Wright E-2 engine; 190 h.p.; top speed 115 m.p.h.

"Duster" Crop dusting plane.

"Petrel" Advanced training plane.

Aerial Service Corp., Hammondsport, N.Y.

"Mercury" - Night mail plane; 1 Liberty 12 engine; speed 51-125 m.p.h.; ceiling 17,000 ft; 47'1" span; 28'5" length.

1924 - October - Consolidated Aircraft Corp (Reuben Fleet, President)
moves to Buffalo, N. Y. (A consolidation of Gallaudet Aircraft Corp., East Greenwich, Rhode Island and Dayton-Wright
Airplane Co.). Built trainers PT-1, PT-2, PT-3, Fleet Trainer,
PBY-1, Fleetster (8 passengers).

1925 - January 2 - Ray Whitman joins Consolidated Aircraft Co.

1925 - Consolidated Aircraft first training plane built for the government. Tested at Curtiss Airdrome on Niagara Falls Blvd. near Sheridan Drive.

1925 - First aerial beacons of 500,000,000 candle power installed on night flying route New York, Buffalo and Chicago.

1926 - May 2 - Major John M. Satterfield, President of the AERO CLUB; together with the Aero Committee of the Chamber of Commerce and the Buffalo Evening News, broke ground for the Buffalo Municipal Airport.

1926 - Consolidated Aircraft Co. flight tests PT-1 at flying field located at Niagara Falls Blvd and Sheridan Drive, Buffalo.

- 1926 First Air Corps fighter (Curtiss) to be built in large numbers and to carry "P" designation.
- 1926 First Curtiss Falcon purchased by the U. S. Army Air Corps and designated the O-1.
- 1926 1930 Buffalo Airport hangar No 1 operated by Charles Dallas and Ed. Ronne with flight instruction. Hangar No 3 was a flight operation run by Michael Steffen. Hangar No 4 operated by the Curtiss Aeroplane Co. and hangar No 5 was operated by Colonial Airways. Ed. Ronne becomes the first airport manager. The City of Buffalo in competition with other operators run hangar No 2. Later (1929) Wright and Esenwein, agents for Travelair airplane established an operation in hangar No 3.
- 1926 1927 Ray Henries of Elba taught flying asan independent with his own airplane at Buffalo Municipal Airport.
- 1927 Eberhart Aeroplane & Motor Co. organized in Buffalo, N. Y.
- 1927 Hall Aluminum Aircraft Co. founded at Buffalo, N. Y.
- 1927 December 17 Colonial Western Airways Inc. began an air mail service from Buffalo to Cleveland, Ohio.
- 1928 Michael Steffen, President of the AERO CLUB, together with nine students at Elm Vocational (now Burgard) High School organized Buffalo's first public school Flying Club. They purchased an Ox-Waco 10 from the Chas. Dallas Flying Service. Each student contributed \$400. as his share of the expense. The charter members were Stephen Lockwood Jr, Jack Little, Joseph Seeley, Chas. Stafford, Clarence Hoft, Clarence Schuster, Howard Kuhles, Charles Kirkland and Michael Steffen.
- 1928 March Lawrence Bell joins Consolidated Aircraft Co.
- 1928 March Colonial Airways reports that it is acquiring 6 Sikorsky planes for passenger service between Buffalo and Toronto in 60 minutes.
- 1928 Curtiss Falcons join the Navy. This series was designated the OC-1 and was the first Observation purchased by the NaWy These and the later OC-2's were powered by Pratt & Whitney Wasp engines.
- 1928 June 1 American Airways was the first airline to cross New York State linking Albany and Buffalo. On this date a Pitcairn Mailwing (a bi-plane with cruising speed of 125 miles per hour) carrying mail (6666 pieces) preceded the Fairchild cabin mono-plane with four passengers and one pilot on this historic occasion. In this same month Buffalo became the hub of air service in New York State with planes being overhauled at the Buffalo Airport, which was considered by experts to be the finest in the country.
- 1928 Edward Becker and brother established Becker Airport at Genesee and Union Road, were dealers of Eaglerock airplanes and had Lou Gray, Don Gould and Charles Cox as flight instructors.
- 1928 Curtiss builds first United States Navy Airplane specifically for dive bombing tactics and carrier operation. Two fixed guns in upper panel and a real swiveling gun completed the armament.
- 1928 Buck Stabel as owner, pilot and mechanic built Depew Airport at Transit Rd. & Como Park Blvd. Charles Adolph and Thomas McKenny learned to fly at this field.
- 1928 September Major Burdette S. Wright, Air Reserve is awarded Distinguished Flying Cross for heroism in action during World War.
- 1928 1930 "During the years between 1928 and 1930, things were moving fast at Consolidated Aircraft. Reuben (Fleet) bought the Thomas Morse Aircraft Company of Ithaca, New York, makers

of observation planes, and moved the company to Buffalo to absorb it into Consolidated. From home base he began to launch a number of satellite companies, including the National Flying Schools Incorporated, Niagara-from-the-Air Incorporated, Frontier Enterprises Incorporated, Fleet Aircraft Incorporated, and of course Nyrba (New York, Rio de Janeiro, Buenos Aires flying boat airlines). In 1930, he created Fleet Aircraft of Canada, Limited, later simply called Fleet Aircraft, Limited. (From "Our Flight to Destiny" by Dorothy Fleet).

1929 - January 28 - The AERO CLUB and the recently-organized Aviation Club of Buffalo merged. The consolidation of the two clubs was predicated on a desire for unified action by one such organization powerful in promoting aviation in this city and in attracting aviation industries here. "The Aviation Club of Buffalo came into being after a dinner given last fall by The Elm Aviation Club and owners of private planes in the Buffalo Canoe Club in honor of Leo Chase.

1929 - February 7 - From the Buffalo Evening News

AERO CLUB Vigorously Backs All News Airport Proposals

Standing firmly back of the program outlined by their officers, the members of the AERO CLUB of Buffalo, with more than 200 in attendance, Wednesday tacitly ap, oved of: Every proposal advanced by the Buffalo Evening News for the improvement and development of the Buffalo Airport in pace with and slightly advance of the growth and expansion of the aviation industry and commercial flying.

Plans for the creation and development of a seaport on the waterfront to handle international and overwater transportation and to encourage manufacturers of amphibians and seaplanes to locate their factories in Buffalo.

Adequate facilities for the use of airway transportation companies operating mail, express, passenger and freight planes in and out of the Buffalo airport, north, east, south and west.

Interest of Citizens Needed.

Steps that would increase and enhance the air-mindedness of the citizens and taxpayers of the city to the end that Buffalo may never lose its position as leader in the production of aircraft and airplane material and equipment.

Approval of these projects was voiced at a meeting of the the club in Hotel Buffalo after the members, the many guests, had listened to talks by Glenn Hoppin, secretary of the Stout Air Service, Inc., of Detroit; Samuel B. Botsford, secretary and general manager of the Buffalo Chamber of Commerce, and Maj. John M. Satterfield, who organized the original AERO CLUB 20 years ago and who has long been active in projects to keep Buffalo prominent on the aviation industry map.

"This organization should stand first of all for an airport second to none in the country," Secretary Botsford of the Chamber of Commerce asserted, after his introduction by Joseph H. Dotterweich, president of the club.

"Buffalo is a leader in the aviation industry by accident, and not by any virtue peculiar to itself. Glenn Curtiss

happened to be at Hammondsport when he developed his airplane. He brought his production of that craft to Buffalo, and the city became, during the war, a great aircraft producing center. After the war the industry suffered with the slump that followed fixed aviation policy. Since then conditions have changed, the government has a policy, and the city has again resumed a strong position in the field of aviation.

"C. M. Keyes, head of the Curtiss organization, and his associates have made this a great center. Other manufacturers have followed. The Chamber of Commerce is capitalizing on that situation by attempting to attract other similar and allied industries to the city. We hope soon to produce some definite

results on our own behalf.

Definite Tasks for Club.

"In addition to the manufacturing activity, there is another phase of aviation which the Chamber of Commerce can not cover. That is the matter of cultivating the public taste to the use of aircraft, the sport side of the proposition. This group, through the revivification of the AERO CLUB, can do that.

"You should favor and support every proposition designed to make the airport constantly better and better. Aviation is changing constantly, and that means this group, which should be in touch with improvements and advanced ideas, should initiate and support projects that will make it always

the leading port in the country.

"Besides this the club must get back of and support the creation by the city of a seaport, where amphibians and seaplanes may land. A waterfront landing place is needed if the city is to attract any seaplane manufacturers to Buffalo. We have ice in the lake and river, a great seasonal disadvantage, which we must overcome.

Waterport Essential Here.

"We need, first, a temporary seaport to take care of requirements while a permanent waterfront landing point is created and developed. The permanent waterport should look to the city's needs 50 years hence, should be commensurate with the needs of the city as a port on the Great Lakes, as an international port of call.

"We suggest that this club lead in making demands that will improve the airport and the seaport. The Chamber of Commerce will follow up, if necessary, with technical and economic studies, and we will help put across any worthy project, and improvement that will continue Buffalo as the

leading aviation center of the country."

The history of the AERO CLUB, born before some of the members of the present organization saw the light of day, and the difficulties that beset the old group when it attempted to get planes for war training, were outlined by Maj. Satterfield, who was termed "the father of aviation in Buffalo", by Mr. Dotterweich.

First Air Squadron Here.

"We organized when the Wright brothers were still experimenting with their "walloping windowpane", Maj. Satterfield said. "There was no commecial aviation, no airplanes designed

for war use. Civil flying was the only form then indulged in. The European war came along and we asked the War Department if we might have planes to train fliers. We organized the first air squadron in America, and became a unit of the New York State National guard.

"There were no manuals, no regulations. We went to Mineola to train when the Mexican border trouble arose. We could not get training planes from the state or government; so we induced our friends here to give us money with which to rent the use of a sufficient number for training purposes.

"With our entrance into the war our squadron was taken over by the Federal government. Our little unit of 39 men was scattered everywhere. Thirty-one of them gained commiss-ions and saw service in France. Some of them never came back.

Club Put Airport Across.

"After the war the aviation industry died. Our organization languished until the question of an airport came up. Then it flourished again and put the airport across.

"Now again it has been revived by men who are younger and more vigorous. By co-ordinating your enthusiasm and activities, this organization can be a strong force in the city's aviation future."

In the absence of William B. Stout, head of the Stout Metal Airplane company and Stout Air Service, Inc., who was to have been the principal speaker, Mr. Hoppin, associated with Stout for 20 years in the production of all-metal planes, was called on to outline the present situation, and to indicate future trends.

"The history, the advance of civilization is the history, the development of transportation", Mr. Hoppin began. "With every advance in transportation has come a corresponding advance in the forward march of civilization. The horse, the railroad and the automobile have all played their respective parts in this history.

Aviation to Bring Changes.

"Now comes the age of air travel. The trend of civilization will be changed, the economic aspects of various parts
of the country, of the world will change in keeping with the
advance of aviation. Yet some business men today do not seem
to know the aviation industry is growing up all around them,
that the new means of transportation will have an ever-changing
effect on their business.

"The coming of the railroad brought great changes in the iron and steel industry producing new alloys and high-speed metals and tools and machinery; the birth of commercial aviation is bringing another change. The metal industry now is being compelled to produce new metals - metals lighter than aluminum and as strong as steel.

"The financial structure of the community will be revamped in pace with the development of aviation. We used to think of thrift in terms of saving; how we think of it in terms of spending to produce something.

Opens Way to New Markets.

"People will have luxuries when the transportation systems speed up to meet their demands. New luxuries are in store for future generations through the speeding up ofttransportation by

airways. The airplanes give producers opportunities to reach points and markets they can not now reach in the same time by any other means.

"Last December we were operating 15,000 miles of airways on regular schedule operation. When the railroads were 25 years old they had only 9,000 miles of lines in operation. In December 500,000 pounds of air freight, mail, and express were carried by the air lines of the country. Between Buffalo and Detroit the Ford Motor Company has carried a ton of freight each way every day in the week except Sunday.

"Buffalo and, of course, Detroit enters the picture through this city, is the gateway to the west for New England in the

air travel of the future.

#### Airport Vital to Growth

"The development of Buffalo's airport is as vital to the city as any other facility that gives the city better transportation facilities. This club has a wonderful opportunity to do a good service to the city.

"But Buffalo, like other cities, must develop its airport to make air service available 24 hours a day. Improved lights beacons and radio signal devices must be installed. Get behind the airport and the men who are working to make it serviceable at all hours of the day and night.

"While doing this, however, beware of promoters with schemes that will end in grief for unwary investors. Do all you can to keep the industry free of these vultures, so that nothing may mar the forward advance of aviation.

1929 - February - From Buffalo Evening News
AERO CLUB ASKS
Council's Favor in Airport Plan
Plea Issued For Full Support of
Program Proposed by News and
Recommended by Advisory Board Moore Picks Seaplane Station Site

A plea for the full support of the Common Council Monday for the complete program of improvements for the Buffalo airport by the AERO CLUB of Buffalo and a recommendation by Parks Commissioner James P. Moore for the creation of an aerial seaport in the lake off the filtration plant came Saturday in the maturing campaign for adequate municipal preparation for the advent of air transportation.

The improvement program backed by the club is that proposed some time ago by the Buffalo Evening News and later recommended by the Airport Advisory Board. A report supporting these added and needed facilities at the airport, and pledging the AERO CLUB to continuing co-operation with the council in putting them through, was signed by Joseph H. Dotterweich, President; Michael F. Steffen, Vice President, and John W. Van Allen, Edward A. Taylor, and Nathaniel E. Duffy, director of the Genesee street field.

Needs are Outlined.

According to an announcement by President Dotterweich, these men have studied the airport problems from all angles, have made a survey of the urgent requirements for the full develoopmend of the port and have come to the conclusion that the Common Council must act without delay in providing the follow-

ing facilities and improvements for efficient day and night flying.

Addition of a plot of about 36 acres of land at the southeastern edge of the airport property for the extension of the northwest-southeast runway and for extension of the hangar line down the eastern edge of the roadway leading to the Administration Building.

Construction of new runways and other facilities at the northern edge of the airport where student aviators may land and take off in their training ships where the National guard and other training bodies may operate without interference with the arrival and departure of commercial airplanes on the main runways.

Safety Measure Included.

Sodding and grading of all the space at the airport, so that forced landings may be made anywhere on the plot without

danger to pilots and equipment.

Adoption of a policy permitting the leasing of land at points designated by the city to responsible operating and manufacturing companies on which they may construct their own hangars for their own peculiar needs, in accordance with plans and specifications approved by the airport director.

Extension of the present administration building so that space for the customs, immigration, and weather bureau divi-

sions may be provided.

Provision for a refreshment stand and dining room at the airport to care for the needs of those using the field and for arriving and departing pilots and their passengers.

Control Tower Urged.

Erection of a control tower on top of the Administration Building from which would be operated signals and lights indicating to pilots when to land and take off so that accidents may be avoided.

Installation of flood and landing lights of high power, so that night mail pilots and others arriving here after dark may land without danger of cracking up and injuring themselves.

Placement of a powerful beacon on the control tower to direct the way of strange aviators to the airport.

Purchase of a new and better gauge to give arriving pilots information they need in landing their airplanes into the wind.

Reconstruction of the roadway between Genesee Street and the Administration Building.

Control Under One Director.

Approval of any measure that would insure the sole direction of the airport resting in the hands of the Director and of any suggestion the Director may have as to rules and regulations for handling air traffic and for construction and main-

tenance of hangars by private companies.

Virtually all of these improvements have been suggested and approved by the Buffalo Evening News and the Airport Advisory Board, President Dotterweich of the AERO CLUB said Saturday. "Our committee has gone into them and find the suggested improvements are for the best interests of the city now and in the future. We are taking this means of again calling the attention of the councilmen to the urgent necessity of doing something definite at this time. We'll do all we can to help or assist in seeing that the work is done and done properly."

Lights Greatly Needed.

"The lights are very greatly needed and needed at once. The

oil lanterns placed on the runways, while of some service to the pilots regularly using the airport, are worthless for aviators not familiar with the land, who arrive after dark."

"Another very urgent improvement is the control tower. In my own airplane I've had several narrow escapes from crashes with others while landing or taking off, and, unless the traffic is properly developed, accidents will occur. Traffic will increase substantially with the coming of good weather."

Stressing the necessity of creating a seaplane landing station here as soon as possible, air-minded civic leaders professed to see flying boats looming increasingly important in the early future of commercial air transportation.

Time Saving Stressed.

They brought out one of the most salient points yet raised for the establishment of a marine airport, one of the steps advocated in the Buffalo Evening News campaign for development of Buffalo as the "Aviation Capital of America", and it has to do with time saving.

A seaplane landing station, they pointed out, invariably is located within close proximity to the heart of the city, along the waterfront, and the sites most favored for Buffalo's marine airport are strategically located in point of distance to the downtown business section.

"A businessman whose time is highly valuable and who must fly, literally, between cities to preserve hours, will find it more expedient to use flying transportation on a hurry trip and land within a few blooks of the heart of the city rather than at an airport five or ten miles distant from downtown and have to waste 30 minutes or more motoring into town", one recognized aviation leader in Buffalo said.

Looking Into Future.

"Commercial transportation in the not far distant future is certain to be taken care of in part by flying boats for that very reason, he continued. "Practically every sizeable city in the country is located on a lake or a large river and therefore can provide alighting facilities for seaplane.

"Before many more years have passed, most of these will have provided themselves with marine airports and travelers who must conserve time will take passage in flying boats from which they can disembark near the heart of the city to which they're going, in order to save the time consumed in driving five or ten miles to and from the airport.

"This argument, of course, is secondary to the fact that Buffalo must have a seaplane landing station if the city is to develop every angle of the aviation industry here. You cannot induce manufacturers of seaplanes to locate their plants in a city where there are no seaplane landing facilities."

Moore Suggests Site.

Parks Commissioner James P. Moore, whose department has direct control of municipal aviation development, came out Friday in favor of locating a seaplane landing station outside the city's waterfront park between Jersey and Georgia Streets, south of the filtration plant.

"The principal reason for favoring this site', he said, "is that it will remove the question of property purchasing. The city owns the land and not a dollar would have to be spent in buying property. I inspected the site several days ago and believe it is entirely satisfactory. It seems to conform to and meet with every element that goes to constitute a marine

airport and I do not believe that the creation of a marine airport there would seriously interfere with the water front park".

1929 - The AERO CLUB sparked by Michael Steffen was active in promoting the construction of hangars and facilities at the Marine airport base at the foot of Georgia Street in Buffalo, to provide a place where flying boats could be landed and stored.

1929 - G. Elias & Bros - Buffalo, N. Y. produced the "Aircoupe" and

the "Airexpress".

1929 - February - From the Buffalo Evening News

New Curtiss Plant Nearing Completion in Tonawanda

Machinery will be moved into the new Curtiss Aeroplane Company plant, now under construction at Vulcan Street and Kenmore Avenue, north of the city line, starting March 15, according to plans of the James Stewart Corporation, contractors. Concrete floors are now being laid in the main building which is over a quarter of a mile long. About one-fourth of the floor already is completed.

The contract called for the completion of the main building, the office building, a testing building and employees garages by April 1. On account of bad weather and delays the plant

probably will not be completed until April 15.

The office building and the testing plant have both been started. Steel frame work on the office building is completed

and workmen are now building the brick walls.

1929 - The Buffalo Aviation Show advertised in the AERO CLUB News "Positively the Most Brilliant Aeronautical Exposition Ever
Held in the United States. Complete Displays of All Types of
Modern Aircraft from Baby Single Seaters to the Huge Pullman
Passenger Airliners and Romantic and Colorful Accessories of
the Industry".

1929 - March - Buffalo's First Aviation Show

The Governor of New York State, the Honorable Franklin D. Roosevelt turned on the lights in the 106th Armory (Masten and North Sts) from a switchboard in his mansion in Albany and thus opened Buffalo's First Aviation Show. All AERO CLUB members were on Show Committee and joined with manufacturers and the Chamber of Commerce to make it a huge success.

Some of the AERO CLUB Show Committee were the following:-Joseph Dotterweich Bryan Waterman Major John Satterfield Michael Steffen Fred Arner Russell Holderman C. Roy Keyes Theodore Knight John Van Allen Harry Hilliker Charles Michie Dai Lewis Leslie Marsden August Esenwein Ganson Depew Milton Washburn R.H.Tifft Lawrence Tremaine George Waite Nathaniel Duffy Major R. Fleet Arthur Nutt John D. Larkin Charles Dallas Dr.Edward Rose Leo Chase Heath Proctor Harold Hunseker L.D.Gifford William Jebb George Marlott John O'Dea William B. Kamprath E. Howard H. Roth Ray Whitman

1929 - March 26 - "The AERO CLUB of Buffalo Invites you to hear its Honored Guest and Speaker

Miss Amelia Earhart

First Woman to Fly Across the Atlantic"

As an opportunity to its members and guests of Buffalo to see and hear this outstanding world personality in the dawning age of air travel and transportation, the AERO CLUB of Buffalo is fortunate indeed to be able to arrange this special Aviation meeting for March 26th, during the week of Buffalo's First Aviation Show.

Miss Earhart's long and thorough knowledge of flying, her earnest and far-reaching interest in its development in Amer-ica, have won for her an esteemed place in its councils today.

The only woman member of the Advisory Board of the National Aeronautic Association, she carries modestly the high respect of the entire Aeronautic World.

Her mastery of the air pilot's art is a far-reaching challenge to American women to share now with men in the delight, the pleasure, and indeed the adventure of conquest of this, man's last great frontier - the upper blue.

To men, Miss Earhart's calm, quiet and unobstrusive use of aviation in her own busy life is suggestive of the great service it holds out to all.

Amelia Earhart talks as she write - always entertainingly. Yet any page of her book, "20 Hours 40 Minutes" or from her latest article for Cosmopolitan, lacks just a something of that delightful charm that you always feel when in her presence. She will speak out of a rich personal experience in piloting her own plane, alone twice across the continent, as well as in aviation matters generally.

As Aviation Editor of Cosmopolitan Magazine, it is through the courtesy of this publication that she comes to Buffalo for this notable day in our aviation history.

The event has been made most fittingly, "Ladies' Night" - open to men and women, and yet necessarily limited to the meet ing capacity of the Main Ballroom of the Hotel Statler where the dinner will be served promptly at 6:15 p.m.

Therefore to handle this properly, tickets must be obtained in advance - do not wait to get yours at the door as orders will be filled in order of receipt of Checks. Tickets, including dinner, informal, \$2.50 per person - send your check in full with enclosed order card in reply envelope herewith.

Committee in charge of this meeting: H. Ralph Badger, Chairman; Hubert F. Boehm, Wm. T. Jebb, Theodore C. Knight, Goodrich Murphy, Carlton C. Proctor, George Starr, Edward A. Taylor, Victor B. Wylegala.

- 1929 The Curtiss-Wright Corporation was formed embracing a combination of Curtiss Aeroplane and Motor Company and Wright Aeronautical Corporation and including Curtiss-Robertson Airplane Manufacturing Corporation, Travel Air, Keystone and Moth.
- 1929 Minature Model aircraft competitions were fostered for a period of years by the AERO CLUB and the Buffalo Evening News among children of the Elementary and High Schools.
- 1929 April 1 The big wind on April Fools Day wrought havoc with our Hangar No 2. Airport Manager Duffy called it the "Big Wind From Ireland".
- 1929 Colonial Western Airways, Inc. carried airmail, passengers and express from Buffalo to Cleveland and passengers from Buffalo to Toronto.
  - Ford Air Transport flies express from Buffalo to Detroit.
- 1929 Kenny Flying Service was formed and Buck Strabel built Kenny Field on Transit Road near Millersport Highway. Don Coe and Kenneth Burke were mechanics and pilots.
- 1929 May 1 The first night air mail arrived in Buffalo from Cleveland.

1929 - LeRoy, N. Y.Airport was built with Russ Holderman as manager and Michael Steffen as part time instructor.

1929 - The AERO CLUB opened its new clubrooms in the Sky View Lines Terminal at Cayuga Road and Genesee Street. One of the features of the new lounge was a pool table.

1929 - The Eberhart Airplane Co. of Buffalo constructed a Navy sea-

plane - the XF2GI.

1929 - Edward Kucio and John Kucio begin airport operations in Depew, N. Y. and is still a base for some private airplanes.

1929 - Curtiss builds the Navy trainer NAC-1 known as the Fledgling

powered with a Wright J-5 engine.

1929 - The following AERO CLUB members were appointed ty The Chamber of Commerce to the Aeronautics Committee:

R. Lord O'Brian Bradley Gaylord Wm. Jebb H. Ralph Badger Charles Hall Fred Rose Ansley Sawyer C. Roy Keyes Ganson Depew Joseph Dotterweich Theodore Knight James Spencer Nathaniel Duffy Seymour Knox Reginald Taylor George P. Urban John D. Larkin A.J.Elias George Waite Robert Gallagher Phillip Metz Kenneth A. Wood Dr Conrad Wettlaufer

1929 - August 30 - Lt. Ed.N. Ronne, First Director of the Buffalo Municipal Airport and prominent member of the Aero Club, met his death in an airplane tragedy deep in the forest near Milford, Pa.

1929 - Becker Flying Service at Genesee and Union Road advertise Eaglerock airplanes.

1929 - Irving Air Chute Company Inc. making 2500 chutes a year. (Leslie L. Irvin became Club president in 1952)

1929 - G. Elias & Bros. (Club members) Aircraft Dept. on Seneca Street getting ready to produce the "Aircoupe" and the "Airsport".

1929 - The General Airplane Corporation on Abbott Road (later in the Parenti Motor Plant on Northumberland Ave.) was producing a 3-place cabin monoplane called the "Aristocrat".

1929 (Fall) - Consolidated Commodore - the first of the new boats, using two direct - drive Pratt and Whitney Hornet engines tested by Bill Wheatley who wrote: "A crane mounted on a power barge was used to lift the Commodore from the shore into the water, since at this time the Buffalo Marine Airport had not been completed.

"The third Commodore was flown from the Niagara River to Port Washington, Long Island on December 4, 1929. The temperature at Buffalo was below freezing, and I remember that the spray, incident to the take-off froze on the windshield. I considered using the hand fire extinguisher to break the glass to see out; however I was able to see through a small corner of the glass and finally melted the ice off part of the windshield immediately ahead of me, by holding my bare hand against the glass". (From "Our Flight to Destiny" by Dorothy Fleet).

1929 - Michael F. Steffen (Club president in 1930)

Chairman of the Flying Club Committee of the Aero Club of

Buffalo began organizing groups of members for flying instruction.

1929 - Wright and Esenwein (member of the Aero Club) sold Stinson and Travel Airs

1929 - Henry Holland (member of the Aero Club) offers Complete Aviation Insurance and Protection.

1929 - The Tri-Motor Ford planes were used by Sky-View Lines for sight-seeing over the Falls. Aero Club member, Don Gould was

pilot for the company.

1929 - The Rand Beacon makes night flying safer to pilots seeking the Buffalo Airport.

1929 - An "Aerial dice game" was one of the features of the Buffalo

Times - Aero Club Air Derby.

1929 - The Consolidated Aircraft Corp. build their first Fleet. Equipped with either a Warner or Kinner engine of various horsepower ratings, the airplane was widely used as a trainer in military and civilian schools. Its upper wing was straight and constructed as a single unit, the lower wing having the dihedral and ailerons.

1929 - Consolidated Aircraft Co. build the Tonawanda Airport off Military Road in the Town of Tonawanda where Fleet and other

Consolidated aircraft were tested.

1929-30 - The "AERO CLUB NEWS", a 4 page paper was published in four editions. William Kamprath, club historian, was the editor.

1930 - "Vic Arcangel started feeding the boys at the Buffalo Municipal Airport in 1930, by taking over what was known as the pilot's "blue room", belonging to the old Colonial Airlines, for a kitchen and attaching a diner to it to seat his customers". Vic moved to new Administration Building in 1940.

1930 - The Curtiss-Wright Flying Service takes north half of Hangar 4 at Buffalo Airport with Leo Chase as manager and flight instructor. Curtiss Aeroplane Co. takes south half of Hangar

No. 4.

1930 - The post of Airport Superintendent of Operations pays a salary

of \$2580. annually.

1930 - Pilot Cy Bittner, who flies the night mail from Albany said he can see the new 2,000,000 c.p. beam on top of the Airport Administration building for more than 30 miles.

1930 - March 20-26 - Buffalo's Second Aviation Show (From Buffalo Evening News)

Annual Buffalo Aviation Show

Opens Saturday

Broadway Auditorium to be Scene of Great Exposition of Modern Aircraft.

Largest Seaplane in World to be Feature

"Casey"Jones, Williams, Chamberlain, Stinson and other

Pilots Coming.

The largest seaplane in the world, a Ford tri-motor transport equiped with huge pontoons, each larger than a modern speedboat, will be one of the many notable features of the second annual Buffalo Aviation Show which opens in the Broadway Auditorium on Saturday afternoon, March 22nd. Buffalonians will be privileged to have the first view of this monster of the air and sea which has been tested secretly for the past eight months. Duplicates of this great ship will be used in the Buffalo Cleveland-Detroit-Chicago line of the Ford company this year.

So huge is this plane that a special platform will have to be built so that visitors to the show will be able to inspect it thoroughly. When assembled in the auditorium the top of the wing will be nearly 18 feet from the floor. Three engines totaling 1275 horsepower give the ship a cruising speed of 120 miles an hour and a top speed of 150 miles an hour.

In addition to 32 airplanes, the pick of those made in the United STates, there will be numerous other attractions which have not been seen at any of the other shows this year. Motion pictures of Lindberg's thrilling flight from New York to Paris as well as his other adventures will be shown continuously in one of the large halls adjoining the auditorium. The pictures are free to all who attend the show.

The greatest men in the aviation industry will visit the localshow during the eight days it is open. Charles S. "Casey" Jones, head of the Curtiss-Wright Flying Service and a pilot of national distinction, will be here on Monday, March 24th. He will also address the first Eastern Junior Aeronautical Convention which will be held at the show on that day.

Tuesdy will find Rogert Q. Williams, noted trans Atlantic flier, as the guest of honor. He will speak at the show and also give exhibitions of a new plane of his own design. On Wednesday William B. Stout, designer of the Ford plane, and a number of Detroit aircraft officials, will inspect the exhibits.

Eddie Stinson, a pilot who is familiar with all the airways of the country and whose total time in the air is over 14,000 hours, will fly to Buffalo on Thursday. He is well known in the city and has hundreds of friends there. On Saturday, March 29th, the last day of the show Clarence Chamberlain, first man to fly from New York to Germany, will be guest of honor. Chamberlain is a veteran of the skyways, having learned to fly long before World War 1. Booths, lining the walls of the huge auditorium, will contain every accessory used in flying. Motors of all sizes and types, from the little two-cylinder model to the great 16-cylinder motor which develops more than 1,000 horsepower will be on view. Parachutes, instruments, clothing, and in fact every product that is used in aviation will be on exhibition.

Byram J. Waterman, general manager, has also promised that many surprises will be in store for those who visit the show next week. The interior of the auditorium is being decorated in such a manner that even to those who visit the building frequently will be amazed at its beauty. The entire ceiling, walls and front of the building will be completely covered with vari-colored bunting and flags.

Public interest in the exposition is running high and all indications point to an attendance far greater than that of last year when 65,000 people visited the show. Plans are being made to handle 100,000 people during the eight days of the exhibit.

## 1930 - April 20 - NEWCOMERS ARE WINNERS (Buffalo Evening Times)

After weeks of studying and weighing of values of the many letters submitted, the Student Pilot Contest, conducted by The Times for the Buffalo Aviation Show, Inc., has been decided and the awards made.

Helen J. Wierson, 205 Laurel Street and Alden M. Merrill, 281 Purdy Street, are the winners.

Each of them receives complete training for a private pilot's license, absolutely free of all cost to them.

Charles Dallas, of the C.Dallas, Inc., Aviation School, is to provide the instruction and carry them through until they receive their pilot license.

Both of these winners are newcomer residents of Buffalo. Both of them seemed to be particularly impressed with the importance of Buffalo as an aircraft production center and the importance of the aviation show in making this fact known to

the country.

In the awards, the judges were influenced by the early datings on the letters, by the preparation of them and the methods of presenting the facts. Both letters finally were selected because they represented the viewpoints of persons coming into the city, from other communities. With this exception, may of the letters presented the main facts contained in these winners.

Stipulations in these awards are that these winners shall undertake their flight training during 1930. In the event that they should fail to pass physical examinations they should be permitted to give their flight training awards to some other person. C. Dallas, B. J. Waterman and a Times representative were the judges. The two winning letters will be published next Sunday.

1930 - April 23 - Official Opening and House Warming AERO CLUB OF BUFFALO

New Club Room Facilities - Buffalo Chapter, NAA Quarters Suite 1801 (Top Floor, Lake Corner) Hotel Statler

#### PURPOSE OF ORGANIZATION

- 1. Promotion of aviation in Buffalo
- Assemblying into one organization all people of Buffalo who are interested in aviation so that concentrated action may be taken with civic, state and national authority when necessary.
- 3. Creation of public interest in aviation in Niagara Frontier.
- 4. Co-operate with Air Corps Reserve Officers Association of Buffalo in assisting them to obtain Reserve Corps station at the Buffalo Airport.
- 5. Establishment of central headquarters for information on flying conditions in Buffalo, etc.
- Assisting in the formation of individual group owners of planes.
- 7. Similar accomplishments in comparison with other established Aviation Clubs.
- 8. Assistance and co-operation with local flying service insofar as we may obtain reduced rates for members.
- 9. Co-operation for the establishment of municipal lake front landing facilities.
- 10.Regular meetings of members with group activities, bringing to Buffalo prominent, national activities on all phases of aviation from time to time.
- "One of the best sellers of all was the Fleet, the small two seater bi-plane with a twenty-eight-foot wing span and sixty to 200 horsepower engines. They were sold commercially and as trainers and eventually became the most widely used training planes in the Orient. According to the law set down by the National Aeronautical Chamber of Commerce, a minimum safety factor was required of all planes. The factor was rated as 8. Reuben (Fleet), however, whose memory of the flying deathtraps used during the war hadn't dimmed in the least, demanded a safety factor at least 16 points above the minimum on all of his planes or a factor of 24.

"The first international competitive demonstration in which the Fleet participated, was held at Lisbon, Portugal, with pilot Gordon Mounce flying the Consolidated entry. The Fleet was in competition with the English Auro, English Tiger Moth, English Blackburn, French Caudron and the Italian Caproni. -The Fleet won. (From "Our Flight to Destiny" by Dorothy Fleet)

1930 - The AERO CLUB of Buffalo becomes a Chapter of the National Aeronautic Association of USA Inc. - the representative in the U.S.A. of the Federation Aeronatique Internationale.

1930 - July 19 - The AERO CLUB sponsored the first New York State Air Tour, seeing New York State by air, visiting 12 cities and flying over scores of towns and villages, with 12 planes and doing it in six days. Officers were:

Joseph Dotterweich, Tour Commander Michael F.Steffen, Tour Referee Russell Holderman, Tour Starter

1930 - July 23 - Glenn H. Curtiss dies at Buffalo, N. Y.

1931 - Art. Seifert opens an airport on Sheridan Drive near Transit Road.

1931 - July 28 - Reprint from The Buffalo Sunday Times
Early Exploits of AERO CLUB Members

In 1909, the AERO CLUB rented two barns near the old Buffalo Country Club - now The Grover Cleveland Park. These were transformed into "plane factories" and finished products were tested on the Country Club Polo field. Practically all members of the AERO CLUB at that time belonged to the Country Club. Among the aviation enthusiasts of those days were H.A.Meldrum, Ralph Sidway, George P. Urban Jr., Ganson Lapew, E.R.Thomas, Colonel Charles Clifton, Howard Forman, Seymour P. White and Dr. Charles Carey.

Dr. Carey backed the "Flying Doughnut" - a plane made by one of the early inventors. It got its name from the fact that it had a hole 8 feet in diameter in the middle.

Whenever one of these "master" machines was "perfected", members of the Country Club were invited to witness its operation. The trial flight of the "Flying Doughnut" was attended by the entire Country Club membership. After much tinkering, the motor was started and the plane began to roar up and down the field. But it wouldn't leave the ground, and when the pilot increased the speed to the limit, it careened and smashed up.

Another plane built by AERO CLUB members resembled a cross between a reaping and threshing machine. It never got into the air, but did a good job keeping the grass short on the Polo Field.

Members of the AERO CLUB persisted in their efforts, and by the beginning of the World War, aviation interest was so great that 40 members of the CLUB formed the first flying squadron in the United States. All funds for planes and other equipment came from the pockets of the members.

1931 - Lee Airport was formed in Lockport, N. Y. with Allen VanDeMark, the mayor of Lockport, as manager.

1932 - First low-wing monoplane pursuit plane built by Curtiss.

1932 - Buffalo Aeronautical Corporation incorporated by J.A. (Al) Gardiner.

1932 - March 26 - The test of the Consolidated XPZY-1

"--and the ice which had covered Buffalo Harbor through the dark winter months had finally broken up into hundreds of minature icebergs floating on the surface of Lake Erie. The stretch of frozen beach leading to the shore was covered with a layer of fresh snow; the sky was as gray and forbidding as the choppy waters of the harbor. Earlier that day a wind had blown the accumulation of ice to the far side of the bay,

leaving a space sufficiently large for a take off.

"The test had been eagerly awaited, since the patrol-boat design had won another Navy competition for Consolidated the previous year. The uffalo Marine Airport was completed and the plane's prototype had been constructed outdoors. The weather had made the job a particularly unpleasant one, and periodically the workers engaged in the assembly were obliged to put down their tools and head for one of the storage buildings to thaw out. At last the patrol boat with a 100 foot wing span and a 62 foot length, was finished; but the Buffalo weather delayed the test until the calendar reported that the winter was over.

"Finally, the hoped-for propitious day arrived. Huddled in overcoats, stamping their feet on the frozen ground, Consolidated officials and key men watched as the big boat slipped down the ramp which had been built the harbor to a depth of eleven feet of water. The pilot is Bill Wheatley. His only passenger was designer I. M. (Mac) Liddon, who never failed to take the first flight out in any plane he had designed.

"After the plane had been in the air for pachaps thirty minutes, Laddon happened to glance down at the narbor. What he saw was cause for alarm; the wind had dropped and the ice had begun to drift back across the water late the landing area.

"Mac wasted no time in pointing out the dange, to Wheatley, who came in for a landing before the small amount of space remaining was obliterated by the floating ice. Within the hour the water adjacent to the ramp was completely clogged and all hopes to continue with the testing that day were abandoned. (From "Our Flight To Destiny" by Dorothy Fleet).

- 1932 Scott Aviation Corporation, Lancaster, N.Y. established by
  Earle Scott for the manufacture of parts and accessories for
  light aircraft (the first fully automatic full-swivel steerable
  tailwheel, the first vectical hydraulic brake actuator, etc.)
- 1932 Pat Patterson was the operator of Niagara Falls Municipal Airport with Fred Downing bringing from Erie, Pennsylvania a New
  Standard Trainer, a 3-place Standard and a 7 passenger Travelair. Philip Miraglia was flight instructor and Gregory Ductor,
  Horace Milks and Hugh Van Alstyne were students.
- 1933 Curtiss Helldiver in use by both the U.S. Navy and Marines.

  Powered by twin-row radial engine.
- 1933 Dunham, a piano tuner from Hamburg, N. Y., designed, built and flew a high wing monoplane with folding wings at Buffalo Air-port.
- 1934 Major Reuben Fleet, President of Consolidated Aircraft Co.
  Buffalo, crashes near London, Ontario and hospitalized for a
  long time. Lawrence Bell was made Vice President and General
  Manager and Ray Whitman was made Vice President and Assistant
  General Manager.
  In Engineering Department was McDonald, who later formed Mc-

In Engineering Department was McDonald, who later formed Mc-Donald Aircraft Co., and Joe Gwinn who later formed Gwinn Aircar Co.

- 1934 Phils Flying Service operated at Buffalo airport with a Great Lakes Trainer and a Buhl Pup owned by Greg. Ductor. Roy Sutton was one of the many students.
- 1934 May Curtiss delivers first SOC airplane known as the XO3C-1 equipped with floats for operation from battle ships and cruisers.

1935 - Argonaut Aircraft Inc. of North Tonawanda, N. Y. produces a 3 place amphibious flying boat monoplane called the "Pirate".

1935 - July 10 - Lawrence D. Bell incorporates Bell Aircraft Corp.,
Ray P. Whitman - Vice President and Robert J. Woods - Chief

Engineer (All presidents of AERO CLUB)

1935 - Buffalo Aeronautical Corp. purchased by F. Leslie Marsden,
Alex Cherry and H. Leibee Wheeler. Leo Chase and Buck
Strabel were pilots and later Howard Benzel and Norman Raup
were mechanics. Other pilots were Norb. Roy and Nels. Mann.

1935 - August - Joseph Gwinn incorporates Gwinn Aircar Co., Buffalo,NY.
Previously built a mock-up in a loft in North Tonawanda. Production of 2 planes and parts in plant at Hertel and Elmwood.
The Gwinn Aircar was a rudderless two control operated plane.
It was one of the first tricycle landing gear planes and the
front wheel was steerable.

1935 - September 7-8 - Buffalo Air Races Inc. were sponsored by AERO CLUB and Lawrence Bell under direction of E. Howard H. Roth,

Vice president and Manager.

1935 - September - Consolidated Aircraft Corp. moves from Buffalo to San Diego, Calif.

1935 - Curtiss manufactures Navy Scout Observation SOC-1 equipped with pontoon and wing tip floats.

1935 - September 22 - Bell Aircraft receives first contract.

1936 - American Airlines inaugurates 21 passenger (14 as a sleeper)
DC-3 service out of Buffalo. Cruising speed 180 mph.

1936 - Curtiss builds YIP airplanes for Air Corps.

1936 - Michael Steffen moves operations from Buffalo Airport to Kenny Field (Transit Road near Millersport Hwy.) and renamed it Steffen Airport and operated it until 1951.

1936 - Electric controllable pitch propeller developed by Curtiss in Buffalo.

1936 - May 12 - Contract to build the XFM-1 Airacuda awarded to Bell Aircraft Corp.

1936 - Phils Flying Service moves from Buffalo Airport to Tonawanda

Airport and left in 1938.

- 1937 August On the last demonstration before volume production the Gwinn Aircar crashes after a take-off from the Campbell Estate in East Aurora. The pilot Frank Hawkes, a noted aviation speed record holder, was killed as was passenger Hazard Campbell. The Gwinn Aircar Co. was discontinued in September 1938.
- 1937 Sept. 1 First All-Bell airplane XFM-l Airacuda, a long range, multi-place fighter flown at Buffalo Airport Genesee Street.
- 1937 Fred and Paul Schoelkopf started Robinson Airline at Ithaca, NY and came into Buffalo as an interstate airline. This became Mohawk Airlines.
- 1937 Curtiss builds high performance dive bomber with heavy defensive armament and completely retractable landing gear. Many squadrons of the Curtiss SBC-3 type operated from carriers of the U.S.Fleet.
- 1937 Pennsylvania-Central Airlines inaugurates service from Washington, D. C. to Buffalo by way of Baltimore, Harrisburg and Williamsport flying Boeings 247D.

1938 - April 6 - First flight of the Bell XP-39.

1938 - May 20 - Contract awarded Bell for 13 Airacudas.

1938 - Jack Drescher and Philip Miraglia reopened old Becker Airport (Genesee and Union Road) and operated it until 1940.

1938 - October 26 - "Army Flier Sets Speed Mark Here" - Shatters military plane mark in making 360 mile flight in one hour, one minute flying a Curtiss P-36.

1938 - Dick Benson began local operations at Tonawanda Airport. John Seal and Jack Prior were students here. Jim Benson became manager when the operations grew to Niagara Falls Airport and to Colgate University operations at Hamilton, N. Y.

1938 - Pennsylvania-Central Airlines inaugurates Pittsburgh-Buffalo

route.

1938 - Nov. 8 - Navy contract awarded Bell for XFL Airabonita.

1939 - January 23 - H. Lloyd Child, test pilot of Curtiss-Wright (Buffalo) achieves a new record of 575 miles per hour in a dive from 22,000 feet above Buffalo airport in a Curtiss-"Hawk" 75A.

1939 - April 13 - Contract for 12 Airacobras awarded to Bell Aircraft

Corp - Buffalo, N. Y.

1939 - Stanley W. Smith (Bell Aircraft Corp) designed and built a sideby-side 2 seater utility glider called the "Golden Goose".

1939 - Curtiss-Wright Corp. starts production of P-40.

1939 - Wendt Aircraft Corp. of Buffalo, N. Y. manufactures a 2 place

cabin monoplane.

1940 - Anthony W.Riccio builds Gardenville Airport on Clinton Street. Completely burned to ground in 1942. Rebuilt and exists today as Buffalo Air Park. All early flight tests of the Bell helicopter were conducted from this field with Floyd Carlson as chief test pilot for Bell Aircraft. Some of the men of note who learned to fly here are Dr. George Moore, Director of Roswell Park Memorial Institute at Buffalo, Supreme Court Justice Hamilton Ward, Jack Burchfield, Roxy Giam, area businessman.

1940 - April 7 - Robert Fausel, Assistant Chief of the Curtiss Test Flight Section broke Child's dive record when he attained a speed of 661 miles an hour in a Curtiss P-40 at Wright Field.

1940 - Graf Field at Wright Corners at Lockport, N. Y. began operating as a flight school with Geo. Graf as pilot instructor. Closed operations in 1952.

1940 - May 13 - Flight of Bell Airabonita

1940 - 41 - Stanley W. Smith forms group at Bell Aircraft Corp. composed of Bob Kluge, Bob Distin, Howard Burr, Jack Zietlow to buy a new Schweizer SGS 2-8 2-seater. Flew this by auto tow at old Bell Airport on Military Road (Tonawanda, N.Y.) and at Lockport, N. Y. Airport. One flight was from Lockport to Elmira, N. Y. (over 100 miles)

1941 - January 8 - Bell Airacobra breaks World's power dive record at

630 mph.

1941 - Curtiss builds many 0-52's for the U.S.Army. Powered by Pratt w Whitney single row Wasp engine.

1941 - Curtiss builds the Navy trainer SNC-1 powered with a 9 cylinder

Wright Whirlwind engine.

1941 - Curtiss builds the AT9 known by the Army as the "Jeep".

1941 - June 25 - American Airlines flies initial run from Buffalo to Toronto, Canada. Some of the passengers aboard the Flagship Buffalo were Aero Club members John Van Allen, E. Howard H. Roth, Robert J. Woods.

1941 - Jack Drescher moves his operations from Becker Airport (Genesee & Union Rd) to Clarence, N. Y. and operated in the early civilian pilot training programs.

1941 - August 25 - Bell receives contract for 2000 Airacobras.

- 1941 September 30 Bell receives contract for three XP-59's, America's first jet plane.
- 1941 November 1 Bell began helicopter development in Gardenville, N. Y.
- 1942 March 12 Bell Aircraft Corp. receives the first Navy E (Excellence) pennant awarded to an airplane manufacturer.
- 1942 June 5 Aero Club of Buffalo presents colors to the Buffalo unit of the Civil Air Patrol. John W. Van Allen, intelligence officer of the C.A.P., E. Howard H. Roth, executive officer of the unit. Leo Chase was a member of this C.A.P.
- 1942 Curtiss builds Navy Observation plane, the SO3C-1 Seagull with floats or conventional landgear. Powered by a Ranger engine.
- 1942 Curtiss builds the U.S. Navy dive bomber SB2C-1.
- 1942 October 1 First flight of Bell XP-59 jet airplane.
- 1942 December 7 Bell XP-63 flown.
- 1942 Curtiss-Wright delivers 4,511 War Hawks, Owls, C-46 Commanders and P-47 Thunderbolts from its Buffalo plant.
- 1943 February 11 Airplane Division of the Curtiss-Wright Corporation dedicates its Research Laboratory and appoints Dr. Clifford C. Furnas director.
- 1943 Earle Scott builds a small airport opposite the present Scott Aviation plant in Lancaster, N. Y. and still known as Scott Field. James Kaletta learned to fly with Jerry Stephen as instructor. Kaletta, now sales manager for Scott aviation products, was one of the youngest pilots to be hired by a major airline.
- 1943 July 29 First formal flight of Bell helicopter.
- 1943 October 29 Two passenger Bell Cobra TP-39 turned over to Army Air Forces.
- 1944 American Airlines starts the first Buffalo air freight service.
- 1944 January 7 Bell P-59 Airacomet announced.
- 1944 April 1 First flight of all-plywood Bell XP-77 fighter at Muroc, Calif.
- 1944 May 10 Flight of the Bell helicopter inside the 65th Armory, Buffalo, N. Y.
- 1944 June 16 The 10,000th fighter plane produced by Bell Aircraft
- 1944 August 1 Bell P-63 announced.
- 1944 Bell Aircraft Corp. at its Marietta, Georgia plant completes 201 B-29 Boeing "Superfortress" bombers.
- 1945 January 5 First use of helicopter for emergency rescue.
- 1945 January 10 Lawrence D. Bell is awarded the 1944 Daniel Guggenheim Medal for achievement in the design and production of military aircraft.
- 1945 February The Army Air Force placed a contract with Bell Aircraft Corp. to build 3 transonic aircraft to be propelled by liquid-fueled rockets; these aircraft were designated the XS-1.
- 1945 Art, Francis, James Ferchen, Bill Orcutt formed Niagara Falls Aeronautical with Ed. Chappel as backer.
- 1945 The Snyder family in Hamburg, N. Y. created Hamburg Air Park at Camp Rd & Southwestern Blvd. Bill Russell was manager.
- 1945 Frank Salisbury starts Blasdell Airport at Lake Ave & McKinley Pkwy in Blasdell, N. Y.
- 1945 Burgard Vocational High School in Buffalo offers aviation courses approved by Federal Aviation Agency.
- 1940 1945 World War 11 Bell produced 13,392 planes (YFM. B-29, P-39, P-59, P-63)
  Curtiss produced 25,432 planes (P-40, P-36, SBC, O-52, C-46, P-47, 503C, SB2C, C-76, SNC, C-55, AT-9, P-60, SC-1)

- 1945 Scott Aviation Corp. (Lancaster, N.Y.) develops a new diluter demand regulator which has been produced in large quantities.
- 1945 Bell Aircraft going all-out in production for the post war market.
- 1945 46 Stanley W. Smith forms group at Bell Aircraft Corp. to buy a war surplus TG-4A 2 seater glider trainer from the Air Corps. Group consisted of Bob Stanley, Dick Frost, Cleveland Hyde and Smith. Smith did check out Jack Woolams in this craft, Jack was Bell's Chief Test Pilot and was preparing to fly the X-1, which was under construction. Through Smith and Stanley, the X-1, was equipped with "spoilers" since it was always to be landed dead stick like any other glider.

1946 - January 1 - Cornell Aeronautical Laboratory as "an instrument of service to the aircraft industry - to education - to the public at large". established thru gift of Curtiss-Wright Aeronautical Research Laboratory in Buffalo - Dr. Clifford C. Furnas is Director and Executive Vice President.

1946 - March 8 - NC-IH Bell Model 47 helicopter awarded world's first commercial certification.

1946 - Gregory Ductor and Stanley Fliss opened Sky Harbor Airport on Genesee St. near Transit Road.

1946 - Lloyd Washburn, Art Curtiss and Irv. Malay operate Steffen Airport for 2 years.

1946 - May 17 - Bell L-39 (P-63 with sweptback wings) announced.

1946 - Sigmund Kwasniewski opened Lakeview Airport in Hamburg, N.Y. and today is known as Hamburg Flying Service.

1946 - Cornell Aeronautical Laboratory Inc (Buffalo) designs and successfully tests one of the first supersonic Ramjet test missiles.

1946 - October 5 - License granted to Bell by C.A.A. for float type helicopter.

1946 - December 8 - The first American (designed for the purpose)
rocket powered manned flight was made at Muroc, Calif. by the
XS-1 (Bell) research aircraft, at approximately 550 miles per
hour.

1946 - December 11 - First power flight of Bell X-1.

1946 - Development by Cornell Aeronautical Laboratory Inc (Buffalo) of a rapid-response hydraulic servo-valve of unprecedented performance which had many applications in aircraft and missiles.

(Successors to this valve became the basis for Moog Valve Company - now Moog Servocontrols, Inc.)

1946 - December 31 - Delivery of first production line Bell helicopter

to Army.

1946 - thru 1950 - Sky Harbor Aviation operated a flight school at Niagara Falls, N. Y. with John Stoltz as president, Arnold Krueger as vice president, Charles Sheppard as treasurer, and Geo. Williamson as attorney.

1947 - Stanley W. Smith (Bell Aircraft Corp.) bought a prewar, one-of-a-kind, wooden construction high-performance saliplane called "Yellow Peril" and rebuilt it in the hangar at Parsons Airfield in North Tonawanda. Smith flew it in the 1947 nationals in Wichita Falls, Texas and "placed". It had been renamed "Excess Too" because Smith was Project Engineer on XS-2 at the time.

1947 - Taylor Johnson opens Colonial Village Airpark adjacent to Niagara Falls Airport with one of the first areas to have attached airplane hangars and garages with homes around the edge of the airport.

- 1947 Mutual Aviation with Francis Kagel, Joe Homesberger, Samuel Smith, and Alice Talcott begin operations at Tonawanda Airport. They purchased the airport from Bell Aircraft for \$75,000 but returned it to Bell in 1951. Mutual Aviation continued to operate out of Buffalo Municipal Airport with 3 C-47 airplanes and carried freight to New York City till 1954.
- 1947 John Olmstead operated a flying school on Buffalo Municipal Airport as Mastercraft Aviation and as Olmstead Flying Service to 1953. Jack Prior was one of flight instructors.
- 1947 Mike Parsons opens Shawnee Airport on Shawnee Road in Tonawanda, N.Y.
- 1947 Cornell Aeronautical Laboratory, Inc. (Buffalo) initiated the first research on effects of blade bending on helicopter rotor blades to consider higher-order harmonic moments which led to practical methods of predicting periodic airloads on rotors.
- 1947 October 14 The XS-1(Bell) made the first supersonic flight by traveling 760 miles per hour over Muroc Dry Lake with Capt. Charles E. Yeager at the controls. (Capt. Yeager later spoke at AERO CLUB meeting).
- 1948 American Airlines inaugurates 40 passenger twin-engine Convair service at Buffalo. Cruising speed 300 mph at 15,000 feet.

  American Airlines also uses 52 passenger DC-6 at Buffalo.
- 1948 Development by Cornell Aeronautical Laboratory Inc (Buffalo) of the first air supported radome for housing radar installations. Radomes were commercially manufactured by the Rubber companies following CAL's initial development and used in many places, particularly remote bases like the DEW line. (The air-supported concept forms the basis for the Bird-Air Company in Buffalo).
- 1948 Cornell Aeronautical Laboratory incorporated as a not-for profit stock corporation of the State of New York, wholly owned by Cornell University. Dr. Theodore P. Wright was appointed as President and Chairman of the Board, Dr. Furnas remained Director of the Laboratory and its Executive Vice President.
- 1948 Publication by Cornell Aeronautical Laboratory Inc (Buffalo) of the first definitive papers on wing-body interference as a factor in the design of wings for supersonic aircraft.
- 1948 Development by Cornell Aeronautical Laboratory, Inc. (Buffalo)
  of one of the nation's first variable stability airplanes an F4U as a flying simulator for evaluating aircraft handling
  characteristics, particularly in dutch roll and spiraling.
- 1948 July Robert M. Stanley (former Vice-President of Engineering at Bell Aircraft Corp. and the first American to fly a jet plane) assisted by a closely=knit group of carefully-chosen associates submits a successful bid and was awarded a contract by the Navy for the development and manufacture of some electronics instruments. This was the beginning of Stanley Aviation Corp. The first contract was completed in Bob Stanley's home on Starin Ave., Buffalo. N. Y.
- 1949 January 7 Bell X-1 climbed to 23,000 feet.
- 1949 Sky Harbor absorbed Niagara Falls Aeronautical and became the terminus for New York Sky Line Freight operation. This was the third largest flight school in N. Y. State.
- 1949 March 18 Bell helicopter makes altitude record 18,550 feet.
- 1949 March 24 Bell helicopter makes speed record 133.9 mph
- 1949 Prior Enterprises started at Tonawanda Airport with Jack Prior as the only asset.
- 1949 Stanley Aviation Corp. moves to top floor of an old Harlem Road school building.

- 1949 = 1950 Dan Callahan and Goodyear Daniels operate a seaplane base in Niagara River at Tonawanda Island.
- 1950 May 19 U. S. Air Force announces Bell-built Tarzon bomb.
- 1950 Vice Brophy operated Audubon Airport at Millersport & Maple Roads, Amherst, N. Y.
- 1950 October Stanley Aviation Corp. purchases all machinery of United Services for Air, Inc and moves to Buffalo Airport.
- 1951 Scott Aviation Corporation (Lancaster, N.Y.) develops specialized oxygen equipment for use in high altitude turbojet and
  jet transports. Scott equipment has become the accepted
  standard on all of the jet and turbojet transports built in
  U.S. and abroad.
- 1951 Bob Stark started Niagara Airways which has grown to a full size operation as Beechcraft dealers today at Niagara Falls Airport.
- 1951 April 5 Bell's XV-3 convertiplane design selected by Air Force and Army; development contract awarded.
- 1951 Orchard Park Airport (Routes 18B & 217) opened and operated by Nelson Fahs.
- 1951 Comception and development by Cornell Aeronautical Laboratory Inc. (Buffalo) of the first hypersonic shock tunnel for proveding air flows at hypersonic velocities five times the speed of sound and above to investigate problems of missile and space flight. Similar facilities are now widely employed in the United States and abroad.
- 1951 June 14 Flight of jet-propelled Bell X-5, first airplane with variable wing, announced.

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- 1951 July Stanley W.Smith (Bell Aircraft C orp) flying "Excess Too", clinched second place in the National Gliding Competition at Elmira, N. Y. with a completed Goal and Return flight to Dansville, N. Y. and return to Harris Hill, Elmira, N.Y.
- 1951 The downward ejection seat designed by Stanley Aviation Corp.
  (Buffalo Airport) was chosen for the B-47 and B-52 jet bomber production programs.
- .1952 September Non-stop flight of Bell 47D-1 helicopter from Fort Worth to Wheatfield, N. Y. (1217 miles) sets world long distance, non-stop solo flight record.
- 1952 Stanley W Smith (Bell Aircraft Corp.) flies "Excess Too" sailplane from Tonawanda, N. Y. to Barberton, Ohio a distance of
  215 miles. The longest soaring flight ever made from the
  Buffalo area. Crew was Barney Wiggin (Buffalo meteorologist)
  and Del Reed.
- 1952 Frank Favale takes over operation of Audubon Airport which is now (1965) known as Amherst Airport on Millersport Hwy. and Dann Roads.
- 1952 Stanley W.Smith (Bell Aircraft Corp.) wins a place on the USA Team that competes in Madrid, Spain in the World Gliding and Soaring Championships. Used the Schweizer Model 1-21, the first prototype for the latter line of production Schweizer (Elmira, N.Y.) sailplanes.
- 1953 April 9 Rocket-powered Bell X-lA undergoes initial flight tests at Edwards Air Force Base, Calif.
- 1953 July Stanley W.Smith (Bell Aircraft Corp.) places second in the National Soaring Championships at Elmira, startling the management at Idlewild International Airport with a goal flight, landing there to win the National Airlines prize.
- 1953 October 14 Top speed and altitude marks of Bell X-1 -- 967 miles per hour and 70,140 feet --- are announced.

- 1953 Development and operation by Cornell Aeronautical Laboratory
  Inc. (Buffalo) of the first "perforated throat" for a wind
  tunnel which allowed for efficient testing of aircraft at the
  speed of sound. The perforated throat design was adopted by
  other tunnel operations, including the Air Force's major
  facility at Tullahoma.
- 1953 December 12 Bell X-lA exceeds 1600 miles per hour; fastest flight ever recorded by a piloted aircraft.
- 1953 Ira G.Ross became Director and Executive Vice-President of Cornell Aeronautical Laboratory Inc.
- 1954 March Bell Aircraft Corp. announces development of remote controls to land guided missiles.
- 1954 Stanley Fliss and Gregory Ductor took over operation of Steffen Airport (Transit Rd. & Millersport Hwy) under corporate hame of Transit Aircraft Corp.
- 1954 May Carmody Corporation began doing busin on the Buffalo Municipal Airport. The original contract was for a cockpit simulator for the Navy F-ll-F-l jet fighter Additional trainers were developed in the fields of radar, gumnery, navigation, power plant and air traffic satesy.
- 1954 May 22 Stanley W. Smith (Bell Aircraft Corp) completes a successful goal flight to Elmira, N. Y. from Batavia, N.Y. for a visit to Schweizer Aircraft where the new 2-seater he was to fly in England was being built. 'I a next day Smith soared back from Elmira to BAtavia completing the round trip entirely by sailplane.
- 1954 July As a member of the USA Team to the World Ci. mpionships in England, Stanley W.Smith (Bell Aircraft Corp.) with Bob Kidder of East Aurora as co-pilot, placed third in the 2-seater class in spite of a forced landing that prohibited competing on the last day of the event.
- 1954 September Bell X-1A broke altitude record 90,000 feet.
- 1954 November First flight of Bell-developed VTOL airplane.
- 1954 Stanley Aviation Corp. moves from Buffalo, N. Y. to Denver, Colorado.
- 1955 March Bell Rascal air to-ground missile announced to public.
- 1955 Cornell Aeronautical Laboratory, Inc. (Buffalo) provided some of the country's earlier experimental evidence that radar cross sections of missile nose cones could be made considerably smaller than previously believed possible an important factor in missile detectibility which influences ICBM defense plans.
- 1955 March Manufacture of "Nike" engines by Bell announced.
- 1955 Stanley W.Smith (Bell Aircraft Corp.) places sixth in the National Soaring Competition after winning the title of "Northeastern States Champion" in the Regional Competition. This performance was made possible partly by him making the longest distance flight of the 1955 contest to win the Bendix Gold Trophy for Distance.
- 1955 September First flight of the Bell XV-3 convertiplane.
- 1955 Fall Carmody Corp. develops one of the first helicopter simulators and was the first company to produce production quantities of helicopter trainers (H-34 Sikorsky Helicopter) for the U.S.Army.
- 1955 November First powered flight of the Bell X-2.
- 1956 Mel. Finch begins operations at Colonial Village Airport in Niagara Falls, N. Y. then moves to Niagara Falls Municipal Airport.
- 1956 Robert Arnold begins operation at town of Royalton Airport.

1956 - August - Bell X-2 Rocket airplane makes aviation history by flying to greater speeds (2,148 miles per hour) and higher altitudes (126,200 feet) than ever before attained by man.

1956 - Stanley W. Smith (Bell Aircraft Corp.) completes altitude requirement for coveted "Gold C" Award in soaring, the 55th in

the U.S.A.

1956 - Barney Wiggin (Buffalo Meteorologist) was awarded the U. S.

Department of Commerce "Silver Medal for his "Pioneering Work
in Preparing Localized Forecasts and his Assistance as Soaring

Meteorologist".

1957 - Development by Cornell Aeronautical Laboratory, Inc. (Buffalo) of the most complete "variable stability and control aircraft" a modified T-33 with variable stability over all three axis—which has become the most advanced research tool for evaluating the handling characteristics of aircraft in flight.

1957 - February - Successfully completed initial flight test phase of Bell X-14 VTOL airplane during 1957. It flew first in February

1957.

1957 - Heusler Aviation starts at Buffalo Airport with Jack Prior as

chief pilot. The "traffic-copter" was born here.

1957 - June 2 - Capt. Joseph W. Kittinger Jr, USAF remained aloft in a plastic man high 1 balloon for 6 hours, 34 minutes, including over 2 hours over 90,000 feet, and reaching 96,000 feet. (Capt. Kittinger later spoke at Aero Club).

1957 - Howard Lee opens Transit Airpark on Transit Road near Ellicott

Creek, Lockport, N. Y.

1957 - August - Navy successfully completes sea trials of Bell's automatic all weather airplane landing system on the aircraft carrier Antietam, operating in the Gulf of Mexico.

1957 - National Soaring Competition held in Elmira, N.Y. and Stanley W.Smith (Bell Aircraft Corp.) won the National Championship for the second time. Also won the "Aero Club of Buffalo Goal Flight Award" and the Brace-Mueller-Huntley Award for the only completed goal flight to Syracuse, also the New England Soaring Association Award for being the first (and only) pilot to negotiate a 244-mile flight to Barre, Massachusetts. Smith was elected to the Helms Soaring Hall of Fame.

1957 - November - GAM-63 Rascal was turned over to the Air Force Strategic Air Command. The Strategic Air Command has announced that the first operational squadron to use the Belldeveloped missile has been activated.

1957 - Development and successful test firing by Cornell Aeronautical Laboratory, Inc. of the Lacrosse guided missile which later was produced by the Martin Company for operational deployment by the Army as a highly accurate close support weapon.

1958 - May - Bell X-14 jet VTOL makes the first complete transitional

flight at the Niagara Falls, N. Y. Airport.

1958 - Design and development by Cornell Aeronautical Laboratory, Inc.
(Buffalo) of an intercept control computer to assist the Navy
in air intercept problems...a version of which is now in
commercial production and will become an operational element
of the Navy's fleet defense system.

1958 - June - Bell and the Martin Company are named to head a sixcompany industrial team to develop phase one of the Air Force's

Dyna-Soar project.

1958 - August - Bell announces the first successful large-scale thrust chamber firings utilizing elemental liquid fluorine.

1958 - Stanley W.Smith (Bell Aircraft Corp) earns No 1 spot on the USA Team for the World Soaring Championships held in Lenzo,

- Poland. Flew a rented French Brequet 901.
- 1958 December Agena rocket engine built by Bell will be used in "Project Discoverer" a satellite program to be carried out by the Air Force.
- 1959 February Bell built engine serves as second-stage rocket to boost Agena satellite into polar orbit in first successful Discoverer launching.
- 1959 March 17 Jacqueline Cochran was Aero Club speaker in a "Tribute to Women in Aviation".
- 1959 March Carmody Corp. builds the first full-scale model for the Dyna-Soar project for Bell Aircraft. This model was complete with controls, visual navigational display, instruments, thrust unit, and electronic black boxes.
- 1959 May Bell selected to provide reaction controls for Project Mercury, this country's first manned-satellite program.
- 1959 August Bell receives contract to provide reaction controls for Project Centaur, one of the U.S. most advanced space vehicles.
- 1959 October Bell reveals it is producing in quantity a highly precise accelerometer for use in the Army's Sergeant ballistic missile.
- 1959 December The Bell XV-3 Convertiplane was successfully flight tested.
- 1960 Feb. 26 The Air Force launched Midas 1 at Cape Vanaveral.

  This was the first use of the Atlas-Agena Rocket combination.

  (Agena engine built by Bell in Buffalo).
- 1960 Ira G. Ross becomes President of Cornell Aeronautical Laboratory Inc.
- 1960 May Bell announces Navy \$4.3 million contract for four AN/SPN-10 automatic landing systems.
- 1960 Successful operation of the first automatic "recognizing" computer -- the Mark l Perceptron -- with potential applications ranging from photo interpretation to solar flare prediction by Cornell Aeronautical Laboratory, Inc. (Buffalo).
- 1960 July 2 Textron Inc. acquires defense business of Bell Aircraft Corporation' creates Bell Aerospace Corporation with three operating divisions -- Bell Aerosystems Company of Buffalo, Bell Helicopter Company of Fort Worth, Texas, and Hydraulic Research and Manufacturing Company of Burbank, Calif.
- 1960 September Bell conducts first full-scale firings of a complete turbo-pump-fed rocket engine using liquid fluorine and liquid hydrogen as propellants.
- 1960 November Bell turns over 18-foot air cushion vehicle to Navy for test and evaluation.
- 1960 December Bell unveils full-scale model of DI88A VTOL fighter-bomber.
- 1961 As atomic weapons became increasingly important, Carmody Corp. developed and produced a series of trainers associated with these special weapons.
- 1961 Prior Aviation begins operation at Greater Buffalo International Airport.
- 1961 June 1 Capital Airlines serving Buffalo joins United Air Lines.
- 1961 Bernie Aptheker opened County Line Airport (Niagara Falls Blvd & Ellicott Creek Rd) when Geo. Graf retired from this location.
- 1961 March Bell's reaction control system used in successful Mercury flight.
- 1961 Development by Cornell Aeronautical Laboratory, Inc. (Buffalo) of the first radar capable of transmitting 50 megawatts into the atmosphere, a power well beyond that previously held possible.

- 1961 May Bell's Agena to power final stage of NASA's Project Ranger moon probe.
- 1961 June Bell announces it has built and demonstrated rocket belt for man's first free flight with rocket carried on his back.
- 1961 August Bell Agena powers second stage of NASA Ranger satellite.
- 1961 August Bell completes final tests of new automatic landing system, the GSM-5A, for Air Force at Niagara Falls Municipal Airport.
- 1961 November Bell announces development of Zero Gravity Belt.
- 1962 January Bell announces it will build a 22-ton, 62 foot Hydroskimmer for the Navy under a \$2,000,000 contract-largest air cushion vehicle ever constructed in this country.
- 1962 January Bell Agena propels Ranger 3 to moon with Bell velocity meters.
- 1962 February Bell announces development of Hip Pack.
- 1962 Don Smith opens Lockport Cambria Airport in town of Cambria, NY.
- 1962 April Bell reaction control system used to position Centaur,
   first hydrogen-powered space vehicle.
- 1962 Flight testing by Cornell Aeronautical Laboratory, Inc. (Buffalo) of a fully-automatic terrain following system for low altitude flight by aircraft.
- 1962 May Bell-designed high-performance ablative rocket thrust chamber fired.
- 1962 August Bell Agena and digital velocity meters used in Mariner 2 Venus fly-by mission.
- 1962 Development and operation by Cornell Aeronautical Laboratory,
  Inc. (Buffalo) of the wave superheater -- the only facility
  in existence capable of providing high velocity, high temperature airflow for extended durations as a testing device for
  missiles and spacecraft.
- 1962 September Bell gets contract to design and build X-22A VTOL airplane for Tri-Service Research Program.
- 1962 December Bell announced construction of radiation-cooled high performance rocket motor.
- 1962 December Bell obtains \$2,000,000 contract from Boeing to design and build reaction controls for X-20.
- 1963 May 2 Bell announces development of CArabao tri-call air cushion vehicle.
- 1963 Cornell Aeronautical Laboratory, Inc (Buffalo) developed original techniques for discriminating between actual targets and decoys for ICBM defense.
- 1963 July Bell CT-41 successful flight reported.
- 1963 July 25 Bell announces \$11.2 million subcontract from Grumman to develop ascent rocket engine for NASA's Lunar Excursion Module (LEM) of Project Apollo.
- 1963 Stanley W. Smith wins the Middle Atlantic Regional Soaring Championship held at Westminster, Maryland. Places 13th in a field of 47 at Elmira, N. Y.
- 1963 October Bell announces it is ready to apply fluorine propulsion to space missions; major problems solved.
- 1963 October Ordered Random Access Talking Equipment (ORATE) developed by Bell for FAA.
- 1963 November Bell Agena to power target vehicle to rendezvous in space with two-man Gemini spacecraft.
- 1963 December Bell announces successful firing, for the first time bi-propellant radiation-cooled tantalum-tungsten rocket thrust chamber.

- 1964 Scott Aviation Corp. (Lancaster, N.Y.) has been an active participant in the space program through the development and production of regulators for use in fuel cells.
- 1964 January Bell Agena boosted Echo II passive communications balloon satellite into orbit.
- 1964 February Bell's midçourse accelerometer package aboard
  Ranger VI moon shot praised by NASA for "contributing greatly
  to the complete guidance success" of the moon mission.
- 1964 April A 40,000 pound thrust rocket, the free world's most powerful fluorine-hydrogen rocket is successfully tested at Bell Test Center.
- 1964 June Highly-successful firing of Bell-ceveloped LEM Ascent Engine was conducted. NASA calls engine one of the most advanced of the 57 Apollo engines.
- 1964 July Bell Agena rocket engine performed perfectly as space launching platform for moon-bound Ranger 7.
- 1964 Cornell Aeronautical Laboratory, Inc. (Buffalo) developed new concepts in tactical munitions which have been adopted by the Army and put into commercial production.
- 1964 November Bell Agena engine functions perfectly on Mariner III and IV shots at Mars.
- 1965 April First NASA test firing of Bell LEM Ascent rocket engine.
- 1965 April 4 American Airlines inaugurates the first jet service at Buffalo with the introduction of five daily round trip on 94 passenger 727 Boeing Astrojets to New York.
- 1965 April 25 American Airlines introduces jet service from Buffalo to Chicago with 727 Astrojet having cruising speed of 600 mph.
- 1965 Development by Cornell Aeronautical Laboratory, Inc. (Buffalo) of the "General Purpose Airborne Simulator" ... a Lockheed Jetstar modified as a variable stability airplane--for NASA to use in studying the handling qualities of future aircraft.
- 1965 May 25 Formal Roll Out Ceremony for Tri-service X-22A V/STOL aircraft held at Bell.
- 1965 Stanley W. Smith flying an 18 year old Schweizer 1-21, places 28th in a field of 69 (the largest contest ever held in the USA) in the National Soaring Championships at Adrian, Michigan.
- 1965 October 15 AERO CLUB presents Certificates of recognition for their contributions to the achievement of major advances in the development of the Greater Buffalo International Airport to Robert M. Hitchcock (Chairman of the Niagara Frontier Port Authority), Arthur Victor Jr. (Chairman of the Authority's Airport Committee), Charles J. Hauser, James A. Peck, Charles P. Penney Sr., Ira G. Ross (Committee member) Harold B. Ehrlich (executive director), Col. Loren W.Olmstead (Chief Engineer of the Authority), and E.Howard H.Roth of the earlier Airport Advisory Committee.
- 1965 Nov. 1 First four engine jet service (American Airlines Boeing 707) Buffalo to Los Angeles.
- 1965 Nov. 12 Dr. Wernher von Braun honors Dr. Walter R. Dornberger at AERO CLUB meeting.
- 1965 Dec. 15 Allegheny Airlines starts flying 40 passenger propjet Fairchild-Hiller F27J (replacing piston-driven Martin 202) on its Buffalo to Pittsburgh run (in-between stops include Bradford and Franklin - Oil City, Pa.)
- 1965 DEC. 16 United AirLines inaugurates daily nonstop Buffalo-Miami jet service (Boeing 727) - 2 hours and 40 minute flight.

1965 - Dec. 31 - Buffalo Aeronautical Corp. 30th anniversary of purchase by H. Leibee Wheeler and others: "We have watched the field grow from cinder runways to jet runways, from no tower to landing signal lights, to all radio aids, and from one very small Administration Building and one 60' x 80' hangar to its present complex. The company has grown to its present facilities of 64,000 square feet of hangar, shop and office space and, right now, is bursting at the seams even in this facility.

"In the past we have represented as distributors WACO Aircraft, Stinson aircraft, Ryan Navions, Cessna aircraft and, since 1952 and through the present time, we do represent Aero Commander. We have grown from 3 employees to about 40 and from Piper Trainers to 9-place Pressurized Grand Commanders. We hold ratings as an F.A.A. Approved Repair Station, as an Air Taxi Operator and DOT operating certificates for charter

operations into Canada.

"We are open 365 days a year and 24 hours a day. We provide full charter service to all of the major companies in this area. We service over 1,000 ships a year with their mechanical and electronic requirements. We are a distributor for all leading lines of aircraft electronics, for Continental and Lycoming engines, for Goodrich, Exide and most of the other leading lines of aircraft parts and accessories".

#### THE FUTURE OF AVIATION

The Best Guesses as of 1966

by

#### Clifford C. Furnas

Making prophecies is dangerous business unless one makes the forecast far enough into the future to avoid check ups and recrimination. Nevertheless, one should be bold, so without attempting to set a definite time scale, the following events appear to be reasonably probable. At least they are technically possible and hence probably will come to pass.

#### COMMERCIAL AVIATION

The supersonic commercial transport will certainly be with us within a few years and it soon will have world-wide utility.

Hypersonic commercial transportation will be somewhat further aown the road but eventually it will come. The preliminary designs of the pioneer, Dr. Walter Dornberger of the Bell Aerospace Corporation, will come to fruition. The system can be visualized somewhat as follows. There will be a very large, winged recoverable booster. It will be powered by turbojets and hypersonic ramjets and will fly with its detachable payload to the outer fringes of the atmosphere at Mach numbers up to 15 or 18. The passenger-carrying glide capsule will then be released and rocket motors will be turned on which will send it into a ballistic path precisely airmed toward its destination. As it approaches its landing point, retrorockets will be used and it will glide down to a smooth and gentle landing. Transport time between any two points on the globe will then be the order of 90 minutes.

The bulk of commercial travel, however, will be in more prosaic machines. Probably most of the passenger miles will be carried in subsonic jet aircraft. There will be precise traffic control through the entire route for all aircraft in flight. The equipment for guidance and control will allow almost truly 100% all-weather operation and will be essentially automatic. The safety record of commercial

aircraft will steadily improve.

Vertical takeoff and landing aircraft (VTOL) will have increasing utility. For commercial purposes the true VTOL's will, for the most part, be some type of compound helicopter which will undoubtedly be improved over the present models in both economy and speed.

Short takeoff and lading airplanes (STOL) will have very important commercial applications. This will be accomplished with fixed-

wing aircraft incorporating short-duration, pan-cake lift engines with very high lift-weight ratios 25 to 30 to 1. The lift engines will be used only for takeoff and landing. When the necessary technical developments have been completed the payoff in terms of useful

payload will be large indeed.

Runways will not grow longer -- they probably will tend to become shorter within the foreseeable future. This will be the result of both the VTOL and the STOL aircraft. There is even a good possibility that the circular type of airport will prove to be feasible. Such a proposal was made by the United States Navy as a result of evaluations made in 1965 by the Naval Weapons Evaluation Facility on the General Motors Desert Proving Grounds at Mesa, Arizona. Such an airport would have several attractive features, particularly the ability to handle large numbers of aircraft.

#### EXECUTIVE AIRCRAFT

The number and utilization of so-called executive aircraft will undoubtedly grow quite rapidly. The types and the models which will be used will always lag a few years behind the latest commercial developments. Even though there will not be any distinctive new types for executive use it can be said that there will be many more of them and that they will be better airplanes or helicopters than are presently in use.

#### PRIVATE FLYING

There will be a steady increase in both numbers and the utilization of small private aircraft both rotary wing and fixed wing. Here, again, the developments of machines will lag at least several years behind the latest developments of both commercial and executive aircraft. The largest boost to the use of small private aircraft will come about as a result of more reliable. instrumentation and controls, greater safety features and precise, usable air traffic control systems.

#### THE MILITARY

There will be a marked increase in the number and the size of fixed-wing airplanes for military transport, both for personnel and materiel. In contrast to many other aspects of military operations economic criteria will be very important here. The cost per ton-mile will be very important in determining type, size and number of air-craft which will be utilized. Rotary-wing aircraft will have increased use for transport for short ranges particularly under difficult conditions of terrain or of available facilities.

The function of strategic weapons of mass destruction will gradually be taken over entirely by missiles. The manned strategic bomber

will gradually fade out of the picture.

As long as there is warfare, however, there will always be a demand for high performance tactical and support aircraft which will be man-carrying. This is the area where true VTOL fixed-wing aircraft will probably come into their own and this in turn will probably lead to some significant commercial developments along the same line.

With the orbiting of the first Sputnik on October 4, 1957, it became evident that consideration of aviation would have to include aerospace. The functioning and the use are closely intertwined.

In the years to come, we can expect an increasing number of spectaculars in the aerospace regime. Undoubtedly men will land on the moon and return to earth. Permanent scientific laboratories and observatories will be established there with frequent exchanges of personnel.

Mars will be the next in line for manned landings and returns. If Mars proves to be an interesting place, permanent stations will be

established there also.

It will be perfectly feasible for the manned spacecraft to travel to the vicinity of Venus but landing there may be another matter. She may live up to her reputation and be too hot to handle. Further observations by unmanned, instrumented spacecraft will be necessary befor those conditions can be established.

Going closer into the sun, manned spacecraft can be constructed which can journey to the vicinity of Mercury but the surface of that little planet itself is probably too hot for the survival of human flesh. The astronauts will probably just have to wave at it in passing although, of course, they can deposit instruments there for transmitting scientific information.

After the inner planets have been conquered, or at least observed, serious attention will be directed toward Jupiter and the planets which lie beyond. Certainly man will eventually journey into the close vicinity of Jupiter but landing there may be quite another matter. Apparently it is a very hostile body in terms of temperature anc composition. Its low density indicates that it is too tenuous.

There probably is nothing solid to land on.

Man's curiosity is going to be sufficiently intense that he is not going to be satisfied until he can get close enough to the planet Saturn to determine the physical and chemical composition of its rings but insofar as landing is concerned the difficulties mentioned for Jupiter are compounded with Saturn. Its density is only 12% of that of the earth and there probably is no rock on which to stand.

Going still further out, Uranus, Neptune and Pluto may eventually be the goal of some very long, arduous journeys. But landing on them would certainly appear to be a very hazardous and unwise experience. Though man's aggressive spirit and curiosity are very strong, there may be a rather automatic decision that journeys to the reaches of the outermost planets are simply not worth mankind's effort.

Einstein and the Relativity Theory notwithstanding, manned journeys beyond the outer fringes of the solar system simply do not appear to be in the cards. This may be a great disappointment to the younger generation but to the old-timers it probably doesn't make a

great deal of difference.

Clifford C. Furnas December 27, 1965

#### AERO CLUB ACHIEVEMENT AWARDS

For the past two decades the AERO CLUB gave Achievement Awards to members for their outstanding contributions to aviation.

Among those so honored are:

Michael F. Steffen

E. Howard H. Roth

Theodore Wright

William B. Kamprath

A. D. Palmer Jr.

Robert Woods .

Lawrence D. Bell

#### AERO CLUB HONORS GRADUATES

Since 1932, the Club has awarded gold watches to the highest aeronautical graduate each year at Burgard Vocational High School.

The Club pioneed in this program of recognition for outstanding records in the Aviation Department of this school.

#### Watch winners are as follows:

1932	James Lichtenthal	1951	Thomas Franclemont
1933	Thomas Paolucci	1952	Nelson Anker
1934	Edward Weiland	1953	John Brem
1935	Raymond Fiolli	1954	Russell Pirke
1936	Alfred Teschemacher	1955	Walter Lechowski
1937	Joseph Bero	1956	Wayne Broman
1938	Melbourne Lipp	1957	John Palica
1939	Conrad Dziwulski	1958	Donald F. Stark
1940	Edwin Seymour	1959	Donald Huttenlocker
1941	Russell Bauersoz	1960	Angelo Marracino
1942	Andrew Bottaro	1961	Peter J. Gallagher
1943	Robert Walters	1962	Martin J. Jurewicz
1944	James Gordon	1963	Jerome Rodems
1945	George Shofner	1964	Henry Welzmiller
1946	Harold Pitzl	1965	Carl Holeva
1947	John Vullo	1966	William C. Hoffman
1948	Frank Marelli	1967	Robert F. Williams
1949	Fred Maier	1968	David J. Bass
1950	Andrew Stark	1969	David V. Stewart

### Aviation Biographies of Past Presidents of the AERO CLUB of Buffalo

- of AERO CLUB of Buffalo which became the Second AERO Co.,
  New York National Guard and was Federalized in 1916 and
  integrated in the Army Signal Corps, the unit served on
  the Mexican Border as part of the expedition against
  the Mexican revolutionary, Panco Villa. During World
  War 1 he was a major in the Air Service's Headquarters
  in France. When the Buffalo Municipal Airport was established in Cheektowaga, Mr. Satterfield, as a member
  and also Chairman of the old Airport Advisory Board,
  played an important role in the construction of runways
  and other improvements.
- Russell W. Bryant Flying enthusiast who did much to make Buffalonians airminded.
- John D. Larkin Jr. Was one of the original members of the Buffalo Aviation Squadron.
- 1928 & 1929 Joseph H. Dotterweich Airplane owner and private pilot. Served on Airport Advisory Board and was captain in Civil Air Patrol.
- 1930 - Michael F. Steffen - Transport pilot, flight instructor, #3110, Single and multi-engine land and sea, in 1928 -Certified Ground Instructor #1355-40, 1930 - Airplane and Engine Mechanic #9286, 1930. Buffalo Airport Operator "Steffen Flying Service", 1927-1935. Promoted the construction in 1930 of the Buffalo Marine Flying Base at the Foot of Georgia St. Sea Base Operator, Grand Island, N. Y. 1942 - 1950. Operated the Steffen Airport on Transit Road, Amherst, N. Y. Winner of the AERO CLUB Merit Award in 1940, Lieutenant in Civil Air Patrol Training Program, trainer of C.P.T. Student Pilots through World War II, 1939-1945 in charge of Ground School Training at the University of Buffalo and the New York State Teachers College in Buffalo, also at the LeRoy Certificated Flying School, Airport at LeRoy, N. Y. In charge of Aviation at Burgard Vocational High School, 1917-1952, and Aviation Consultant for the New York State Department of Aviation, Albany, N.Y., also Aviation Consultant of the U.S. War Manpower Commission, Federal Security Agency, Civil Service Commission; War Department U.S. Army Air Force and Federal Works Agency, Washington, D.C. 1939-1946.
- 1931 Hubert F. Boehm Private Pilot
- 1932 & 1933 Lawrence Dale Bell Became interested in aviation in 1907, but it wasn't until May, 1912 that he got his first job in aviation, a mechanic to Lincoln Beachy. A few months later he got a job as a mechanic with Glenn Martin in Los Angeles. After the Martin plant

merged with the Wright Company in 1917, Bell went with Martin who opened another plant in Cleveland. During 1917-18, Larry Bell was the liason man between Martin and the Army. In 1928, (learns to fly) Larry became sales manager for Consolidated Aircraft Co. in Buffalo, N.Y. and in 1929 Vice President and General Manager. In July 1935 forms a company with capitalization of \$500,000. Bell Aircraft Corp. was born, May 12, 1936 Bell receives a contract for the Airacuda - the Army ordered 13 Airacudas. Within a year the F-39 Airacobra was developed - the first test flight of the XF-39A was made on Army Day, April 6, 1928 at Wright Field. Nearly 10,000 F-39's rolled off the assembly lines in two Bell plants before Cobra production stopped in July 1944. In 1944, Bell Aircraft Co. reached its peak - 50,674 employees; 8,313,000 square feet of facilities and \$325,000,000 in sales. In addition to the F-39 and F-63, the Niagara Frontier Division turned out the F-59, the nation's first jet propelled plane, the SF-63, a larger twin-engined jet, and the RF-63 armored fighter, used by the Air Force to train aerial gunners. The Air Force's first laminated wood fighter, the XF-77 was also developed. In Georgia, Bell produced 663 B-29's. During 1941 and 1942, the first Bell helicopter, Model 30, was developed and flown. In March 1946, Bell received the world's first CAA commercial helicopter license and within a year, had delivered the first of its commercial helicopters. March 1945 saw the start of the X-1, first plane in the world to fly faster than the speed of sound. Then the X-5, the first plane to be able to vary the sweep of its wings in flight. Finally "We are the only company in the country to convert its headquarters plant to guided missile work on an exclusive basis", Larry pointed out.

"Manufacturer, indefatiable experimentor and zealous advocate of scientific research; pioneer in the creation of new types of aircraft; inspiring director of the efforts of thousands; the Council of the University of Buffalo -- in recognition of the fact that by your contributions both to the nation's protection in time of its greatest danger and to the further exploitation of the Air Force for the peaceful pursuits of men you have won undisputed leadership in your chosen calling and have dignified Buffalo in the eyes of the world."

- J. L. Stromme Captain in the U. S.Air Force assigned to Buffalo as a recruiting officer.
- Theodore P. Wright Chairman of the Executive Committee at Cornell Aeronautical Laboratory, Inc. at Buffalo, N.Y. Had been Vice President for Research at Cornell University, Ithaca, N. Y. In 45 years experience in aeronautics, Dr. Wright's responsibilities have included the posts of Chief Engineer, Vice President, and General Manager of the Aircraft Division of Curtiss-Wright at Buffalo, as well as the post of Director of the Aircraft Resources Control Office and membership on the Aircraft Production Board, Dr. Wright served as Vice Chairman of the NACA, Chairman of the NACA Aerodynamics Committee,

Chairman of the U.S. Aircraft Mission to U.K., Administrator to Vil Aeronautics, Director of the Aircraft Division - U.S. Strategic Bombing Survey, and on the Aeronautics Committee of the R & D Board.

1935

- Ray P. an - One of the first employees in 1916 of the Avia a Section of the Signal Corps, United States Army, and later became a project engineer with the U.S. Army Air ps. He entered the aircraft industry in 1925 wi asolidated Aircraft Corp., in Buffalo, N.Y. In 1930 : was elected a vice president, assistant general ma: and a director of Consolidated. From 1935 and pure ing agency of Bell Aircraft Corp, but relinguishe triple assignment to become 1st vice president. \_\_\_\_aft produced under Whitman's management includ famous P-39 Airacobra, the P-63 Kingcobra, the P-83 jet, the XP-59A- the first U.S. jet fighter plane the XP-77, the unique laminated-plywood fighter. In 1951, Whitman became chairman of the corpor... ammittee on administration. In 1958, Ray Whitman became general manager of Bell's Niagara Frontier Division.

1936

- E. Howar r. Roth - Inspired by Lincoln Beachy flying at the common enilworth Race Track, Howard Roth devoted much to tion in Western New York. During World War 1 he enlisted in the U. S. Navy air force, later obtained private pilots license. In 1930, forced a liquidat on of the Stout - D & C Airlines saving many thousand dollars for local stock-holders. In 1934 & 1935 Larry Bell and AERO CLUB he sponsored Buffalo : Races. In 1938, he was appointed to The Airport Board and was elected Chairman - later resigna out st over airport conditions. Served in The Care Patrol as Executive Officer, then Captain and Gro. anander, and later Major. In 1944, he received . . . LUB Award for outstanding service in the field of ration. In 1945, received Air Department Citation or outstanding service during the war years. In 1946, reappointed to Airport Board and in 1951 appoint - Dairman of Airport Advisory Board and served until 1000. Appointed to Aviation Committee, Buffalo Chamber of Commerce and was Chairman four years. E. Howard H. Roth has been a member of the AERO CLUB of Buff ince middle twenties and has served in all capacity andluding Presidency, devoting much time and effort to the benefit of all members and aviation in general.

1937

- Burdette neelds Wright - "Burdie" Wright came into the Buffalo and in 1935, transferred from Company Representative in the Washington Office of the Curtiss Aeroplane and Motor Empany to the post of Sales Manager at the old Curtiss Plant Number One on Vulcan Street. Burdette was a came officer in the Army Air Corps and went into the Air Amberve with a commission of Major to accept the post in cavilian aviation. He subsequently was named Vice-President in charge of the Curtiss-Wright Airplane

Division and was responsible for the vast wartime expansion which followed.

His total executive command included two factories in Buffalo - Vulcan Street and Buffalo Airport, and factories in Columbus, Ohio; St. Louis, Missouri and Louis-ville, Kentucky. Literally, tens of thousands of aircraft were produced for the United States and her allies including France, China, Turkey, England, Canada and many more.

Famous Curtiss war planes built under Burdette Wright's direction were the P-36, P-37 and P-40 in the fighter category and the A-18 and O-52 observations for light bombing and photography. For naval use, the Airplane Division built the SBC-3, SBC-4 and the SB2C Helldiver series. Also the SO3CI sea gull observation and the SC-1 single seater fighter observation. For the ATC and the Troop Carrier Command, the C-46 transport was built in both Buffalo and St. Louis.

- 1938
- John W. Van Allen Aviation pioneer and aeronautical lawyer, helped Glenn Curtiss in 1910 be "the first man to fly from Albany to New York in less than 24 hours", arranged for Lincoln Beachy to fly under Niagara Falls Bridge in 1911, instrumental in having Glenn Curtiss select the Kail Street site for the Curtiss plant in Buffalo, was a prime mover in establishing the Buffalo Airport and served on the Airport Advisory Board for years, formed first airline (Colonial Airlines) to carry mail out of Buffalo, was an officer in Civil Air Patrol. He was made first Life Member of the AERO CLUB of Buffalo.

- John Albert Williams - "Al" Williams joined Curtiss in

- 1939
  - Buffalo in the mid-30's and after a short stint in sales, teamed with the Curtiss-Wright Airplane Division management group as Executive Staff Assistant to Burdette Wright. When it was decided to build a facility for the construction of naval aircraft at Columbus, Ohio, Al Williams was appointed the General Manager of this project.

    He supervised the plant construction, staffing of personnel and the initial production stages for the huge volume of naval aircraft which the Columbus plant subsequently produced. These included the SB2C Series Helldiver Dive Bomber and the SO3C Seagulls and SC Sea-
- 1940
- F. Leslie Marsden In 1928 employed by Colonial Western Airways in Buffalo and in 1933 formed the fixed base operation of the Buffalo Aeronautical Corporation. He was a Quiet Birdman and a director of Irving Airchute Company, served as a flying officer in the Air Service of the U. S. Army Signal Corps during World War 1 and trained pilots and service personnel for aircraft maintenance and operation. Became a governor of the Eastern Region of the National Aviation Training Association and first vice president of the national unit and also a member of Civil Aeronautics Administration's non-scheduled flying advisory committee.

Hawks - scout observations.

1941

- Robert J. Woods - In 1931 at Lockheed he conceived the special "Lockheed" in which Miss Ruth Nichols broke the women's speed record for the world (210 mph), designed the TE-1 Navy Torpedo Bomber and the Lockheed XP-900. In 1932 - he joins Consolidated Aircraft Corp. in Buffalo as Project Engineer. Between the years 1932 and 1935, Woods designed the YH-25, the fastest military airplane at that time, the P-30 and the PB-2A as well as the A-11. In 1935, Woods stayed in Buffalo with Bell Aircraft Corporation as chief engineer and director. First Bell Aircraft design of Woods to be constructed was the Airacuda using two Alison engines which turned pusher propellers. The Airacuda mounted two 37/mm shellfiring cannons in the forward portion of the engine These installations incorporated power turrets and included the first airborne fire control development, a remote-control system for aiming and firing the flexible 37mm cannons. Only 14 Airacudas were built. The second aircraft developed was the Airacobra, designated P-39 by the Air Force - this was the first single-engine military aircraft ever to use tricycle landing gear and to mount a 37mm shell-firing cannon, which fired through a hollow propeller hub, nearly 10,000 P-39's were built before production was stopped on them to make way for its successor, the P-63 Kingcobra. Woods designed XP-77 an all-wood construction fighter plane. Woods designed the Bell X-1, the first supersonic airplane to successfully pierce the sonic barrier on October 14, 1947 - during the following three years before being retired to the Smithsonian Institute the X-1 flew at subsonic, transonic and supersonic speed in the original configuration. achievement marked the end of the first period of aviation of subsonic speeds and opened up the second phase of supersonic flight.

1942

- Fredric Flader - Draftsman at Curtiss on Elmwood Ave (Buffalo) on the Type F flying boats during War 1. Enlisted in Naval Air Service. In 1920, went to work at McCook Field (later Wright Patterson Air Force Base), participated in the development of the first all-metal military aircraft in America and the first Ambulance aircraft. Then to Buhlverville Aircraft Co. in Detroit where Flader and Roscoe Markey (later with Bell), jointly laid out, designed, performance analyzed, built and test flew the airplane that was awarded the first (No 1) Approved Type Certificate for a passenger aircraft in the U.S. under the Air Commerce Act of 1926. Came to Buffalo in 1926 as Chief Engineer of the Eberhart Aeroplane & Motor Co., Project Engineer on the first PY-1 flying boat. On committee that built the first Buffalo airport terminal building at the present site. In 1930, went with Curtiss-Wright Corp. (Buffalo), developed the A-1 twin engined bomber, the first of its kind in U.S. (a squadron of these won the Harmon trophy for all around excellence of performance, reliability, etc.). In 1944 started Fredric Flader Inc (N.Tonawanda, N.Y.) for Research and Development (including the first twin spoil gas turbine and turbo jet engine in the U.S.etc.).

In 1965, organized Lab Sciences Inc. (Boca Raton, Fla.) making small subsonic wind tunnel and a subminerature supersonic wind tunnel.

- H. Leibee Wheeler While in Harvard College joined the Harvard Flying Club and in 1929 soloed an old Waco tank. In 1933 started flying at Buffalo Aeronautical Corp. and on April 1st resoloed with Leo Chase as instructor. Now holds single engine sea, and single and multi engine land ratings, and have substantially over 5,000 hours of logged time. First owned an old Warner-powered Bird (3 place open biplane). Became interested in B.A.C. in 1934, for many years co-owner with Doc. Marsden, but now majority stockholder and president.
- Charles M. VanDerveer Official of the Aluminum Co. of America specializing in sales to airplane manufacturers. Coordinator of AERO CLUB interests for many years.
- 1945 Lester Benson Plant manager of Bell Aircraft Corp.
- Peter N. Jensen began his career with Curtiss at Garden City, Long Island in 1922. Took over the management of the Buffalo Factory upon coming to Buffalo in 1926.
- Theodore H. Merkens Airplane owner, pilot (land and sea). Captain in Civilian Air Patrol, served the U.S. Navy in World War II as submarine searcher over the Atlantic Ocean.
- Clem G. Trimbach U.S.Army Air Service instructor
  "first" armament school 1917-1919; Aerial Gunner 1919;
  Armament Test, McCook Field 1921-1926; developed "first"
  U.S.machine gun synchronization system, 1925; Wright
  Field 1926-1929; Chief Armament Engineer Curtiss-Wright
  1929-1942; Curtiss Wright Research Laboratory 1942-1946;
  Cornell Aeronautical Laboratory 1946-1963.
  (Ralph Damon was made Honorary Vice President)
- 1949 - A.D. Palmer Ir - In 1929, graduated from Parks Air College with an A & E license. Worked for Becker Flying Service (Buffalo) and then managed the Lockport Flying Service where he sold airplanes, instructed glider courses, etc. In 1934, became associated with Consolidated Aircraft Corp. (Buffalo). In 1936, joined the Curtiss Aeroplane and Motor Company (Buffalo) and was instrumental in the construction of the Design 75 which in production became the Air Corps P-36, the XSBC-1 Navy Dive Bomber, the XSOC-1 Navy Observation Seaplane and the XA-14, forerunner of the YA-18 Army attack Bomber. During 1936 to 1946 he went from head of public relations department to Manager of Public Relations, Director of Public Relations and Advertising, and Director of Public and Internal Relations, as a member of the Curtiss Airplane Division Staff supervising five plants. Since 1947, he has been Advertising and Sales Promotion Manager of The Wurlitzer Company. A.D. Palmer joined the Aero Club in 1935 and is still a member.

- 1950
- John W. Dunn Engineer at Curtiss Aeroplane & Motor Corp. from March 1917 thru October 1918 - U. S. Army to July 1919 - Engineer Inspector at G. Elias & Bro. from July 1921 thru September 1926 - Eberhart Aircraft Corp. from September 1926 thru Nov. 1927 - Engineer & Quality Mgr. at Curtiss-Wright Corp. thru April 1944 - Quality Mgr. at Bell Aircraft Corp. thru Nov. 1944 - Quality Control at Fredric Flader, Inc thru May 1951 - August 1951 - March 1959 Ass't to V.P.Mgr at Bell Aircraft Corp.

1951

- Howard E. R. Hutton - Was the entire Accounting Department of the original Bell Aircraft Corp. when the entire force was 50 employees. Personally took invoices to Wright Field, Dayton, Ohio for processing and returning with a check to meet the next payroll. Also got a "donation" from Larry Bell when the AERO CLUB treasury was too low to pay for the last few meetings of the year.

1952

- Leslie L. Invin - Race car apprentice, balloonist, pilot, parachutist, carnival high diver, and special casting director for a movie company. While working at Curtiss Airplane Company in Buffalo, N.Y. Les Irvin devoted his spare time and energy to the development of a suitable parachute for airplane pilots. Working with the Parachute Section of the U. S. Army Air Service at McCook Field, Dayton, Ohio Irvin developed the first airplane parachute. On April 28th, 1919 Leslie Irvin accomplished the world's first free-fall manually - operated parachute jump at McCook Field. Soon after, the first government contract to be awarded for this type parachute was given to the newly incorporated Irving Air Chuce Company with offices and factory in Buffalo. Leslie Irvin is recognized throughout the world for his original and continuous contributions in the design and development of airborne recovery and escape equipment.

1953

- Roy J. Sandstrom - Vice President of Engineering, Bell Aircraft Co.

1954

- Robert M. Stanley - Chief test pilot and the first to fly the P59 (the first jet airplane), later became Chief Engineer of Bell Aircraft Corp. before starting his own company in Buffalo - Stanley Aviation Corp.

1955

- Dr. Clifford C. Furnas - Appointed by Curtiss-Wright and director of its Aeronautical Research Laboratory in Buffalo in February 1943. This Laboratory was given to Cornell University on January 1, 1946 and he became Director and Executive Vice President of Cornell Aeronautical Laboratory. On December 1, 1955, Dr. Furnas was granted a leave of absence from Chancellor of the University of Buffalo to serve as Assistant Secretary of Defense For Research and Development in Washington, D.C. He returned to his U.S. post February 15, 1957.

1956

- Julius Domonkos - Joined Bell Aircraft Corp. in 1936, held a number of manufacturing positions, including works manager of Bell's Marietta, Ga. bomber plant, managed Bell's Ordnance Division in Burlington, Vt.,

vice president and general manager of the Aircraft Division, then to head all manufacturing operations on a corporate-wide level in April 1959.

- George L. Russell Veteran Buffalo Airline executive, since 1944 was District Sales Manager in the Buffalo area for Capital Airlines, and later sales executive in Buffalo for United Air Lines.
- 1na G. Ross President of Cornell Aeronautical Laboratory, Inc. at Buffalo, N. Y. Closely allied with military research. Chairman of the Western New York Atomic Development Committee. Vice-chairman of the Niagara Frontier Port Authority. President of the Buffalo Area Chamber of Commerce.
- Leston Faneus In 1943 he became assistant to Lawrence Bell, founder of Bell Aircraft Corp. He served as secretary of Bell from 1944 to 1954, treasurer from 1951 to 1954, assistant manager from 1952 to 1954, vice president and general manager from 1954 to 1956 and in that year he was elected president, a post in which he served until 1959. Les Faneuf was elected chairman of the board of Bell in 1957 and he retired in that capacity in 1960.
- Gordon W. Campbell Aviation writer and publication representative (Aero Digest, The Sportsman Pilot, Revista Area). "Perennial Coordinator of the Aero Club" member since 1929.
- Herbert H.Roosa Beginning in 1936 worked with local and national airplane manufacturers on production machinery, developing 50 cal. machine guns for Curtiss planes and 20 mm cannon for Bell P39, and engineering hydraulic systems for helicopters.
- 1962 - John C. Seal - Test pilot and recipient of the Octave Chanute Award in 1952. Obtained his commercial pilot license and flight instructor rating in 1939, flight instructor and charter pilot in 1939 and 1940, flight inspector for Civil Aeronautics Administration in 1941 and 1942, production test pilot for Curtiss-Wright Corp. (Buffalo) in 1942 and from 1943 to 1946 he was an experimental test pilot - he performed the structural dive demonstration and spin tests on all models of the SB2C Hell-Diver. In 1946, he joined the staff of the Flight Research Department of Cornell Aeronautical Laboratory (Buffalo) and was Chief Pilot from then until March 1, 1963. He has more than 7,000 hours of flying time, including 4,000 hours of flight test time - over 1,000 hours in jet aircraft and 300 hours in helicopters.
- William G. Gisel Joined Bell Aircraft Corp. in 1940 and served in various management positions, including comptroller, secretary, treasurer and vice president before rising to the presidency of Bell Aerosystems Company.

1964

- Edmund O. Carmody - Airplane mechanic for Northrup Aircraft 1934; graduated from Pensacola Naval Air Station as a Naval Aviator, 1936; served in fighter squadrons of both the Atlantic and Pacific Fleets 1936-1939; Flight Commanded in charge of primary training for an Army Air Forces Contract School; flight instructor in the Navy, developed the system of synthetic flight training; ordered to Washington 1941; trained Special Devices officers in the operational use of training aids, 1942-1943; staff of the Chief of Naval Air Training 1944; as Air Officer for the U.S.S. Shipley Bay was in charge of all air operations aboard this combat aircraft carrier; Link Aviation 1946-1951; Stanley Aircraft Co. test pilot 1951-1953; 1954 organized Carmody Corp. to develop low-cost, high utility training devices for the Defense Department and Industry.

1965

- Waldemar O. Breuhaus - Head, Flight Research Department of Cornell Aeronautical Laboratory, Inc - Buffalo, N.Y. He has been responsible for a considerable amount of important research on stability and control and handling qualities requirements for manned flight vehicles.

1966

- Lawrence G. Riley - Graduate of University of Detroit in 1930 with a Bachelor of Aeronautical Engineering Degree. Employed briefly in the Engineering Department of both Bell Aircraft and Curtiss-Wright. Joined American Airlines in September of 1933 in Chicago, transferred to Buffalo, March 17, 1934; promoted to Manager of Operations at Dayton, Ohio in 1939; to Syracuse in August of 1941; promoted to Manager of Operations in Buffalo in April 1957; became Buffalo City Manager on Feb. 1, 1960.

1967

- Richard H.McKee - one of the original 13 employees of Bell Aircraft Corp. in 1935 after graduating from Colgate University with a B.A. in economics. Served in a variety of financial assignments and presently is Manager Plant Engineering.

1968

- Jack B. Prior - Local aviation executive, long prominent in Niagara Frontier aviation circles formed Prior Aviation Service, Inc. in October 1961 operating from Greater Buffalo International Airport. This company offers fueling service, aircraft charter, sales and service, and long term lease of aircraft and crews. A full line or radio, accessories and mechanical service for both aircraft and helicopters is available. Prior Aviation Services, Inc. is the first school in the State of New York to be approved for both fixed wing and rotary wing veteran flight training courses. The company rents aircraft to pilots on an hourly or daily basis, operates a passenger sigh-seeing service from the Goat Island Heliport (Niagara Falls) during the summer seasons and has established a Jet helicopter radio traffic program. Jack Prior, as an Airline Transport Pilot, has flown all types of aircraft from Jets to large civilian and military transports. Flying time accummulated (1969) in both aircraft and helicopters exceeds 14,000 hours. Affiliations include Command Pilot, Rank-Major

United States Air Force Reserve, 914th Troop Carrier Group; Federal Aviation Agency Pilot Examiner (Aircraft, Instruments, Rotorcraft), Erie County Sheriff's Aviation Division.

1969

- Nello L. Infanti - Chief Test Pilot, Flight Research Department, Cornell Aeronautical Laboratory Inc., Buffalo; 1942-1946, fighter pilot in U.S. Army Air Force; B.A.E. Rensselaer Polytechnic Institute 1951; Graduate of the USAF Experimental Test Pilot's School; Squadron Commander in a Jet Fighter Wing U S Air Force Reserve Program from 1952 to 1958. He has acted as project pilot on the X-22 Research Aircraft; Air Force Total-Inflight - Simulator C-131H; F-86 Yaw Damper Program; F2H Vortex Thermometer Development; Stability and control of light airplanes (L-19, L-20, L-21, UlA, etc.); ECM tests in an FH-1; automatic landing systems; Lacrosse Missille developments; variable stability and control programs, low level terrain following, and many other programs. He holds a commercial pilot's license with ratings of single and multi engine land, instrument, and rotorcraft-helicopter. He has approximately 4650 hours total flying time of which 1750 hours is in jets and 200 hours in rotorcraft. Till 1961 he has accummulated over 3500 hours of flight test time and flown over 50 types of aircraft and rotorcraft.

# They who have "contributed" to honor those "--who have made significant contribution to the development and advancement of aerospace"

Allen, John American Precision Industries Inc. Ames, Ray W., Jr. Astor, Evo Bell Aerosystems Bentley, John Benzel, Howard A. Block, Adrian, Jr. Breuhaus, W. O. Burnham, Kenneth Ed. Burns, George L. Campbell, Gordon W. Carberry, William Carmody, Edmund O. Chrosniak, R. J. Clark, Warren Connell, M. W. Creighton, Russell Danner, Edwin J. Dearing, Charles Ditsch, Howard Dornberger, Walter R. Eaton, Wayne Ehmann, D. E. Eldred, Robert M. Emerson, Victor F. Jr. Everingham, James M. Flader, Fred Fliss, Stanley Foersch, Paul Folker, Robert A. Foster, Earl F. Frank, Richard C. Furnas, C.C. Gallagher, Robert V. Garey, M.P. Gisel, William G. Hall, John F. Hays, Harry Heidenreich, Elwyn C. Heussler, Donald A. Hofmar, Donald B. Holland, Henry Howell, David F. Hurst, Richard M. Irvin, Leslie Janowsky, Lee Keith, Earl Killian, John King, William F. Kuhn, Norman Lalley, Francis

Lawson, Thomas R. Leadbeater, Thomas Lebovitz, Alex Lee, John Lotz, Albert F. Jr. Manganiello, Biagio Manson, A. G. Marshall, David M. Maylott, Carlton Maynarc, Familton McKee, R. H. McKinney, John McNamara, B. B. Niehaus, Owen Preve, F. P. Prior, Jack Prior, Ken. th Replogle, Edward H. Riley, L.G. Roberts, Marion Rohlman, R. C. Roosa, Herbert H. Rosen, Leo J. Rosen, Dexter Ross, Ira G. Russell, A. G. Russell, George Salisbury, Frank Schreiber, William F. Seal, John Siegert, Charles Sing, Seymour Sheldon, Frank W. Smith, A. J. Smith, R. S. Smith, W. M. Steck, Paul Steffen, Michael Stephenson, John G. Stinson, W. Sutton, J. Leroy Swenson, W. Tolley, H. S. Tower, Duane, Jr. Trimbach, Clem G. Vint, Burton G. Wacks, Peter Waddell, Stanley Warmuz, Ray Webb, George Weber, F. B. Weiss, Alfred Weiss, William Welsh, James P.

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